ACQUISITION STRATEGIES

IN THE INFORMATION SERVICES INDUSTRY

1989 - 1994

INPUT

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Abstract

The INPUT *1989-1994 Acquisitions Strategies in the Information Services Industry* report provides an analysis of recent mergers and acquisition trends in the information services industry, includes insights into current corporate acquisition programs, and presents a five-year forecast on information services mergers and acquisitions activity, with the projected impact on the industry's competitive structure.

The report is based on a survey of executives of companies that have been recent acquirers in the information services industry, executives of companies that have been recently acquired, senior management of companies that have remained independent, and leading investment banking specialists in the information services industry. The survey addresses senior management's opinions on the current levels of acquisition activity in the information services industry, management's assessment of the impact of mergers and acquisitions on the future of the industry, and elicits insights into formal company structures for implementing acquisition programs.

Also included in the report is a discussion on strategic partnering as an alternative or supplement to an acquisition program, and a self-help guide to implementing an acquisition program.

The report contains 172 pages and 41 exhibits.

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I

Introduction

I

Introduction

The report, which was produced as part of Input's Market Analysis Program (MAP), analyzes the acquisition process in the information services industry in the United States.

This topic was selected because of very high client interest. The acquisition process is important to nonparticipants as well as participants because of its competitive impact.

The report provides INPUT's forecast of the acquisition process in the industry over the next five years. It also predicts the impact on the structure of the industry.

Summaries of four information services industry surveys of senior executives in the information services industry performed by INPUT analyze the reasons for companies' making acquisitions in the information services industry.

Respondents for these surveys included 41 executives in acquiring companies, recently acquired companies, independent companies, and third parties such as investment bankers. Three of the respondents were from large companies that through multiple acquisitions had relatively recently become significant participants in the information services industry. Interviews were conducted in March through May of 1989.

The report also identifies many of the characteristics necessary to execute an effective acquisition program. From the point of view of the prospective acquisition, it provides information on what acquirers are looking for.

II

Executive Overview

II

Executive Overview

A

Acquisition Trends

INPUT subdivides the information services industry into seven subsectors: application software, systems software, network services, processing services, turnkey systems, professional services, and systems integration. Software maintenance programs are also included within the two software industry subsectors.

The value of information services mergers and acquisitions transactions rose above $1 billion for the first time in 1983. The trend began to sharply accelerate in the following year. In the first six months of 1984 the value of information services transactions rose to $3.65 billion, based mainly on the strength of two of the largest acquisitions in the history of the industry at that time, the purchase of Tymshare by McDonnell Douglas in March 1984 for $307 million, and the purchase of Electronic Data Systems by General Motors for $2.5 billion in June 1984.

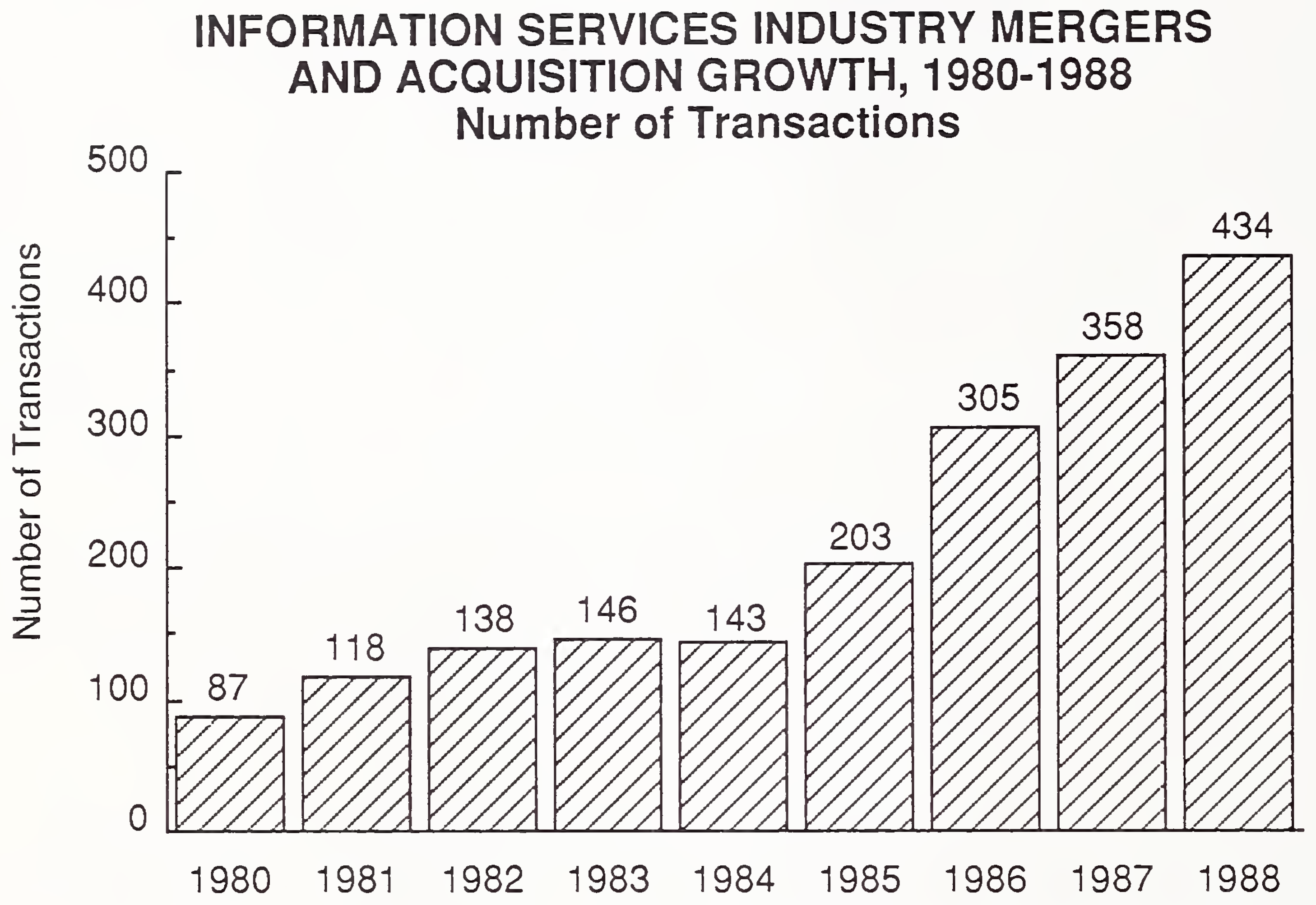
A summary of the information services industry merger and acquisition transaction volume and dollar value from 1980 to 1988 as recorded by Broadview Associates, an information services industry investment banker, is included in Exhibit II-1.

Broadview Associates' definition of information services is comparable to INPUT's.

INPUT believes that the acquisition trend in the information services industry, particularly since 1984, reflects the beginnings of longer-term consolidation activity in the information services industry. Precipitating this trend have been a number of causal factors:

- The maturing of many industry sectors, which are now 20-30 years into their development cycles. This maturity is increasingly evidenced in

EXHIBIT II-1a



Source: Broadview Associates, Fort Lee, New Jersey

the growth rates of many of the larger information services companies that have product history dating from the 1960s and 1970s.

- The difficulties that smaller information services companies are having in a much more competitive environment marked by the entry of many large companies from outside the industry and increased global levels of competition.

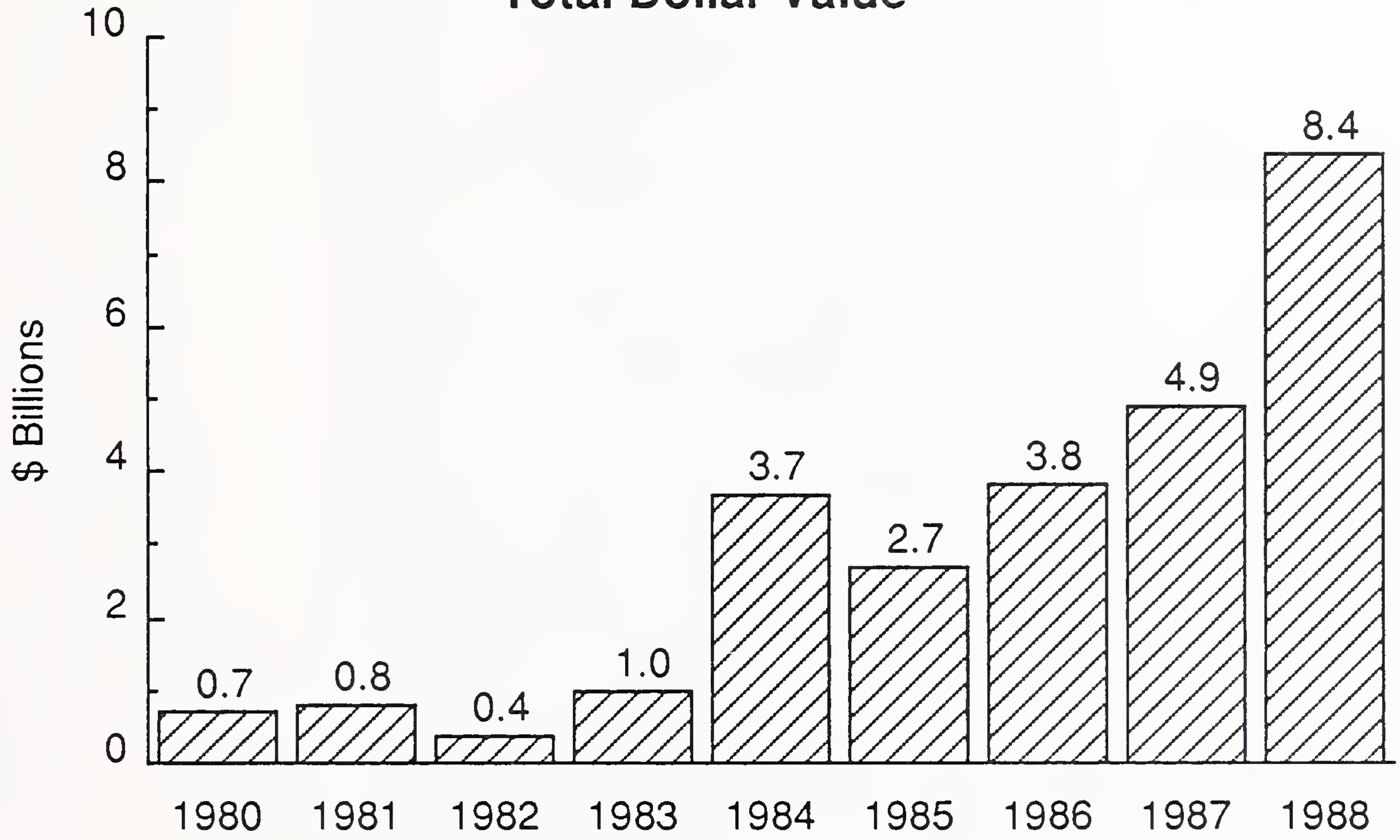
- The inability of the smaller companies to access the public stock markets for less-expensive capital due to the lack of Wall Street sponsorship for smaller, high-risk investments. The lack of Wall Street access is creating a need for many of these companies to be acquired in order to grow.

- The resultant attractive market valuations for potential acquirers that are evaluating the buy-versus-build decision for new-product and technology resources.

EXHIBIT II-1b

INFORMATION SERVICES INDUSTRY MERGERS AND ACQUISITION GROWTH, 1980-1988

Total Dollar Value



Source: Broadview Associates, Fort Lee, New Jersey

- The increasing complexity of product specifications—which often requires the ability to provide multivendor, integrated product offerings—that greatly increases the required scale of operations to successfully compete in many information services markets.

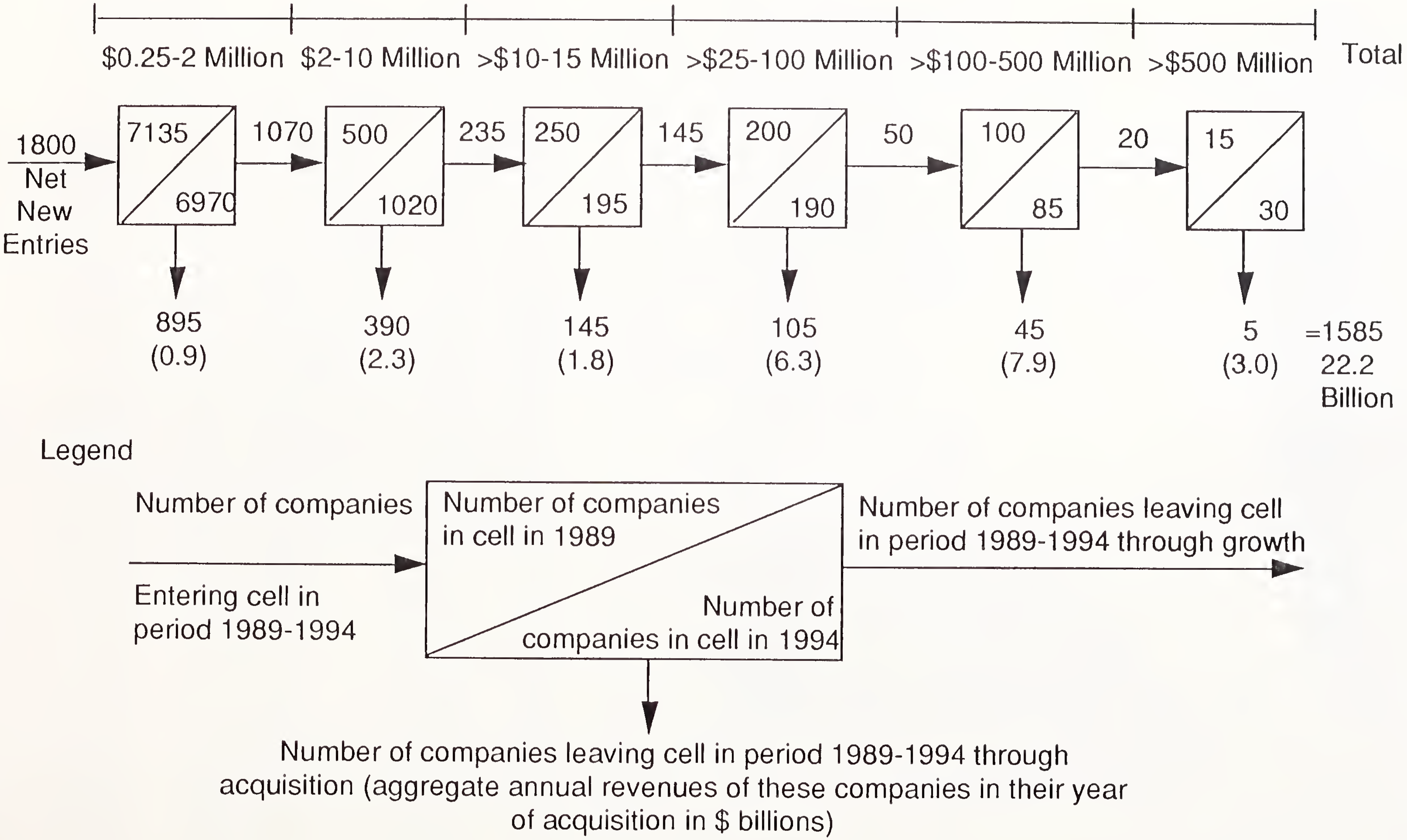
- The indication from industry sources that many of the information services venture capital funds in recent years have not shown competitive returns compared to other types of investments funds. This lagging in returns is putting pressure on many such funds to cash out on many of their investments.

INPUT estimates that the growth rate in information services acquisitions transactions between 1989 and 1994 will continue to be strong over the next two to three years, in particular, and will then level off with shakeouts in various industry sectors. The result will be market stabilization and the emergence of market dominance by a few large companies in each major sector. (Details are in Exhibit II-2.)

EXHIBIT II-2

IMPACT OF GROWTH AND ACQUISITIONS ON THE STRUCTURE OF THE COMPUTER SERVICES INDUSTRY, 1989-1994

Number of Companies by Annual U.S. Computer Services Revenues in $ Millions


$0.25-2 Million
$2-10 Million
>$10-15 Million
>$25-100 Million
>$100-500 Million
>$500 Million
Total
1800
Net New Entries
7135
6970
1070
500
1020
235
250
195
145
200
190
50
100
85
20
15
30
895
(0.9)
390
(2.3)
145
(1.8)
105
(6.3)
45
(7.9)
5
(3.0)
=1585
22.2
Billion
Legend
Number of companies
Entering cell in period 1989-1994
Number of companies in cell in 1989
Number of companies in cell in 1994
Number of companies leaving cell in period 1989-1994 through growth
Number of companies leaving cell in period 1989-1994 through acquisition (aggregate annual revenues of these companies in their year of acquisition in $ billions)

Smaller, entrepreneurial companies will continue to provide much of the innovation for the industry. However, their sources of seed money could change significantly, with many of the larger computer systems and information services companies increasing their venture capital activity in the 1990s.

The vast majority of companies in the information services industry are expected to continue to be under $10 million in revenue. Of the 8,200 information services companies INPUT identified as having revenues of over $250,000, approximately 93% are currently estimated to be under $10 million in revenue. In 1993, INPUT estimates this revenue range to represent approximately 94% of the information services industry.

The greatest consolidation impact is anticipated to occur at the midrange of the information services industry, including companies with more well-defined product reputations and customer bases. Such acquisitions are more likely to have an immediate positive impact on the growth and profitability of the acquiring company; an immediate impact is often a requirement of company shareholders. This requirement dovetails with the need of a number of midsized companies to increase their scales of operation through merger in order to compete more effectively.

B

Impact of Acquisitions

INPUT believes that effective acquisition programs by leading companies are necessary for the information services industry to achieve its projected growth levels.

- Development costs are increasing, as are time constraints.

- Resources of large corporations are increasingly needed for a product or service to reach its full market potential.

Acquisitions can significantly change a company's competitive position.

- Aggressive acquisition programs have been utilized by many current leaders in the various information services industry sectors to achieve incremental growth and improved market share.

- More recent goals of many acquisition programs involving information services companies have been for purposes of product/services diversification, multivendor capability, and providing a total-solutions capability.

- These types of acquisitions strategies are shown by the recent accelerated rate of acquisition activity in the professional services/systems integration industry sectors.

- Geographic coverage, type of services offered, and industries serviced are also company competitive characteristics greatly impacted by acquisitions.

The impact of acquisitions on competition is complex. Overall, INPUT believes the impact will be to make competition stronger.

- Acquisitions will tend to increase the number of areas of product overlap. Acquisitions will also include more international acquisition activity, which will require companies to increasingly meet global productivity and product quality standards in their information services programs.

- Small to midsized firms, particularly with a single-product focus, will feel the most pressure.

- Increasingly, value-added pricing capability and incremental growth will be related to the delivery of professional services and systems integration programs.

Such capability relates to strengths in application development tools, networking, and data base management products, which makes such products hot takeover prospects in the late 1980s.

There will continue to be significant opportunities for smaller companies in highly specialized niche markets, based on emerging technologies. Smaller, entrepreneurial-based companies have historically proven to be much more adept at capitalizing on rapidly emerging technologies that require a higher risk-taking orientation. In addition, the reward for developers is more frequently in stock price appreciation, either through an IPO or acquisition.

C

Acquisition Targets and Methods

The most important parameter for potential acquisitions is revenue growth potential, which is indicative of increasing market share and earnings growth potential. Please see Exhibit II-3.

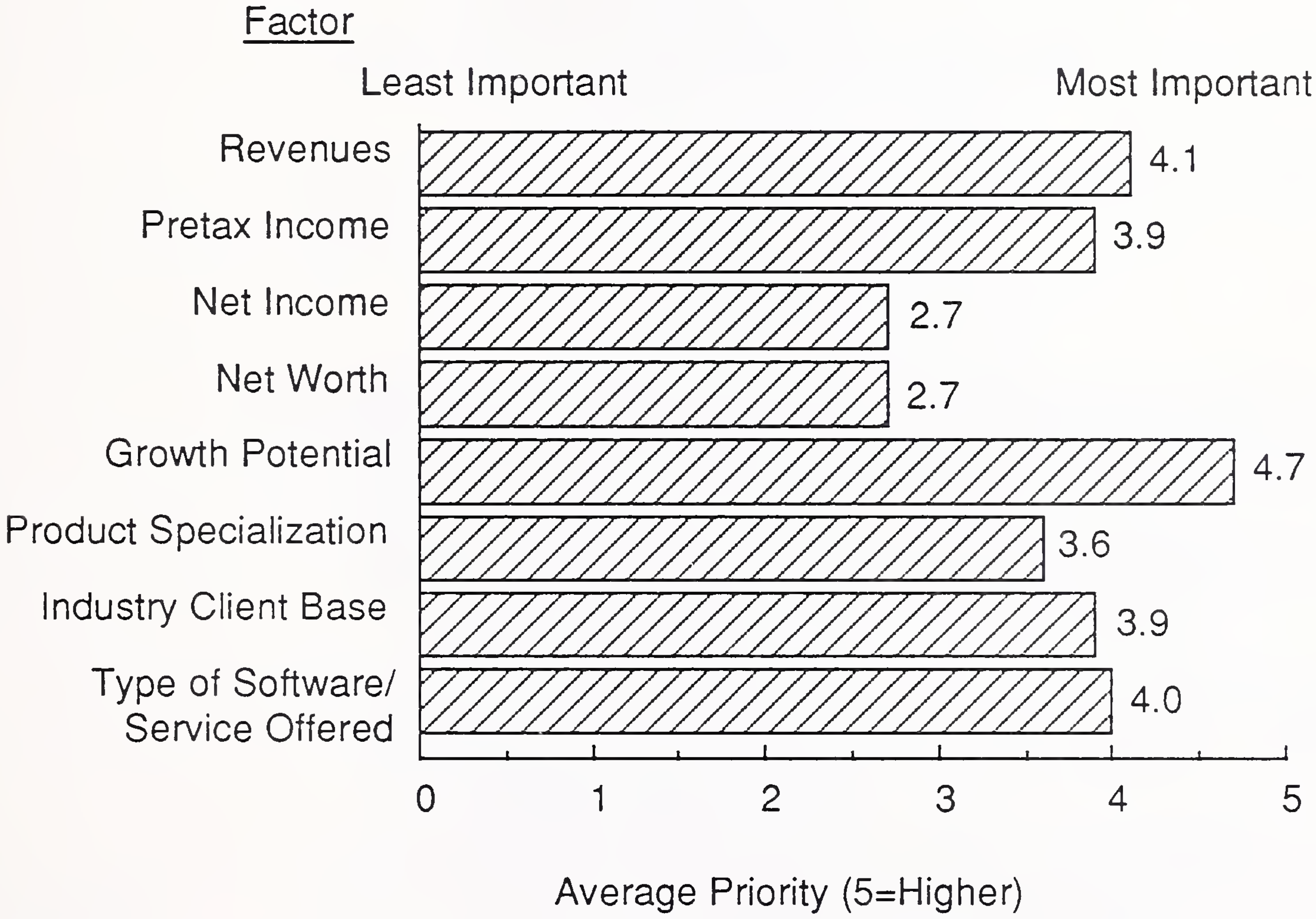
In terms of geographic preferences, U.S. target companies continue to attract strongest interest, with increasing interest in companies in Western Europe.

Preference in size of acquisition is moving toward the small to midrange companies beyond the R&D startup phase.

However, there is also increasing interest in establishing equity positions in R&D-level companies, particularly on the part of the large computer systems vendors.

EXHIBIT II-3

ACQUIRERS' PRIORITY RATINGS OF ACQUISITION EVALUATION FACTORS



Among the respondents that have been frequent acquirers, professional services and systems integration companies elicited the most interest, as shown in Exhibit II-4.

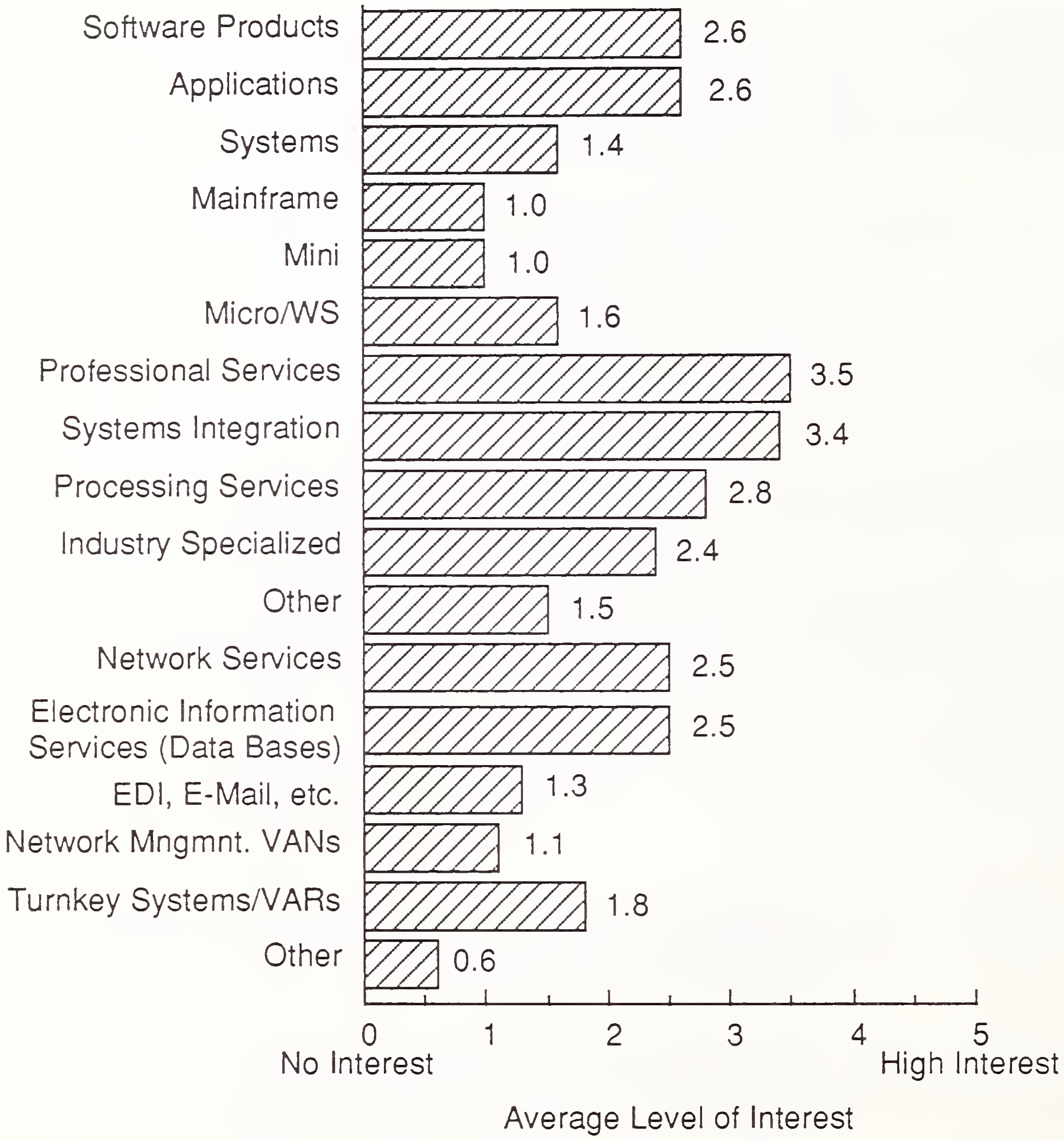
There doesn't appear to be any standard valuation criterion for information services companies. However, a multiple of revenues and discounted future cash flows were mentioned most frequently.

Cash appears to be the preferred buyout medium, as indicated by executives of recently acquired companies and of potential acquirees.

In the postacquisition phase, the handling of management is the biggest problem.

EXHIBIT II-4

ACQUIRERS' PREFERENCES FOR TYPE OF COMPANY



- Good communications at all levels and an involvement of key people are necessary to overcome problems.

- A firm, planned personnel program that is stated up front helps avoid misunderstandings.

- However, acquirers must realize that key people will leave no matter what the acquirer does.

Nearly all respondents indicated they thought the current consolidation phase in the information services industry would accelerate over the next five years. Several respondents viewed the activity as peaking over the next two-three years as the better acquisition targets are taken over and the shakeouts in the various industry sectors run their natural courses.

Most viewed the consolidation activity positively.

The impact of mergers and acquisitions on the vendor structure of the information services industry by 1994 was viewed quite similarly. Particular comments included:

- "Fewer, stronger vendors"

- "By 1994, a number of major players will be quite well defined and will, to greater or lesser degrees, all be focused on systems integration for the delivery of systems, including the hardware vendors."

- "Smaller industry, tighter margins, new needs to differentiate. Consulting and systems integration will be the key."

- "Vendors will find they no longer have 30 to 60 professional service companies to choose from, with fewer dictated maximum rates and more negotiated rates."

D

The Potentially Acquirable Company

Most of the independent companies responding to INPUT's survey on mergers and acquisitions indicated they would prefer being acquired by a large company. Particular reasons included:

- "Capable of setting the standard for the industry"
- "Deep pockets and usually can remain relatively autonomous"

Acquisition by a computer equipment company was also viewed positively by a number of the respondents. Particular reasons for this preference included:

- "Would allow them to retain the most autonomy for the organization"
- "Our software could provide a good fit with a hardware manufacturer"

Specific companies mentioned as most desirable acquirers were leaders in related, complementary markets. Other specific choices involved quality of company management and product, and company ethics.

The mean revenue multiple as an acquisition criterion of the respondent group was 1.5, with a range of 1 to 3.

Respondents tended to prefer cash as the principal method of payment.

Principal reasons for being acquired were to provide liquidity for shareholder investments and to obtain additional resources for the company to expand market share.

Eight of the ten respondents indicated they would use a third party to sell their companies.

Many respondents focused on the pressures for consolidation in the information services industry, related to the following points:

- “The significant discrepancy between private and public market values, which is making private companies attractive takeover candidates”
- “Maturing markets are creating tougher competition.”
- “The increasing costs of software development, combined with the emergence of more-powerful direct sales companies that have a large appetite for new products, is encouraging buy-versus-make decisions for new products.”

Seven of the ten respondents thought that merger and acquisition activity in the information services industry would accelerate over the next five years.

E

The Acquired Company’s Viewpoint

The acquired companies interviewed selected their particular acquirer (only one was an unfriendly takeover) for a variety of reasons. The principal reasons are summarized below:

- Technical and financial strengths of the acquirer
- A strategic fit that also appeared to be the best deal for both shareholders and employees
- Best possible business fit, along with a company culture acceptable to the acquired company’s programming staff
- Acquirer with the resources to help accelerate the growth in the acquired company’s product line
- Opportunity to provide marketing leverage for a product, at the same time providing for work group continuity for existing employees

- Compatible company cultures, product synergies, and longer-term advancement prospects for employees

Twelve of the fifteen executives of the acquired companies indicated current satisfaction with the acquisitions.

Some form of employee job preservation concept was embodied in approximately half of the final acquisition contracts.

Nine of fourteen respondents indicated they used a broker or other third party to help complete the deal.

There wasn't a prevalent mode for valuing the acquired company.

Earnouts as part of the payment agreement were used by only two of the fifteen respondents.

Eleven of the fifteen acquisitions were made principally for cash.

In many cases, the acquired companies remained independent units, which appeared to be highly appreciated by the senior management of the acquired company.

Eleven of the thirteen respondents felt that the information services industry is consolidating, accompanied by an acceleration in the rate of mergers and acquisitions.

F

Acquisition Program Characteristics

Larger companies that had recently made information services acquisitions made these acquisitions for three principal reasons:

- Growth

- The filling of product and services gaps in current product offerings

- Survival as major players in an industry that in the future will be dominated by "a few, large, well-run companies," according to these larger companies.

It is also becoming increasingly important to make acquisitions to diversify product and services offerings to reduce the risk of product obsolescence.

The financial aspects of any acquisition program are a major consideration.

- A thorough due-diligence program should include outside expert opinions to properly value the acquisition target.

- Personal financial planning for the acquisition beneficiaries is also important.

A formal plan covering all aspects of acquisition, from search to integration, is necessary. Few companies carry this plan far enough, either in general or for specific acquisitions.

A dedicated and trained staff is a requirement for an effective acquisition function. To be competitive, at least two people should be dedicated to the process, at least one of whom should be a top-level executive with heavy financial and/or marketing expertise.

An effective and trained support team of accountants and lawyers, either internal or external, must be available at all times. For them, acquisitions must have the highest priority.

Time is of the essence in an acquisition process when the objective is to keep the elapsed time to six months. A company should not skimp on research, postacquisition planning, or getting to know the key people.

Another factor is the cost of the acquisition process itself:

- Per-acquisition process costs (personnel time) in the information services industry, based on INPUT's survey, typically range between $50,000 and $500,000, although for some midsized companies (under $200 million), the acquisition process cost was in excess of $1 million.

- Outside legal expenses over the past decade have become as significant a cost factor in an acquisition program as the in-house corporate M&A personnel costs.

- The opportunity cost of the application of management time and corporate resources is an additional heavy burden.

One of the greatest single factors for the success or failure of an acquisition program is top management's interest in its success.

- This interest includes significant top-management involvement in both pre- and postacquisition plans.

- In addition, executives must be prepared to share decision-making responsibility with the management team of acquired companies.

G

Conclusions and Recommendations

1. Conclusions

The information services industry is undergoing a period of accelerated consolidation, which correlates to some extent with the maturing growth rates of many of the industry's market sectors. This consolidation is leading to a final stage of company shakeouts in many industry subsectors.

Maintenance of account control through increased breadth of product and services offerings and risk reduction through product diversification in an increasingly competitive environment are fueling acquisition activity.

The requirement to compete on a global scale in many information services markets is making it increasingly difficult for the small-to-midsized company with limited capital resources to remain competitive.

The failure of many of the information services companies' stock prices to recover from the October 1987 stock market crash has created bargain opportunities that will likely influence the decision to buy or build at larger companies.

Whether or not acquisitions positively contribute to the performance of the acquiring company and to the would-be success of the acquired company is a continuing issue.

- Among the 35 information services executives that INPUT interviewed for this study on mergers and acquisitions activity, specific acquisition programs were generally viewed positively.
- One mistake some acquirers have made in recent years is acquiring public information services companies prior to a peaking of the company's product life cycle and equating longer-term valuations of the company with Wall Street's short-term valuation parameters.

2. Recommendations

Many of INPUT's recommendations are stated or implied earlier in this chapter. The following represents a further elaboration:

An acquirer should:

- Establish a dedicated acquisition function, separate from the planning function and headed by a senior finance and/or marketing executive who handles the process from beginning to end.
- Establish a definite, detailed acquisition plan related to the company's ability to make acquisitions and meet its corporate objectives.

- Carry a postacquisition plan through postacquisition activities.
- Provide a postacquisition plan as part of the offer. The acquiring company may have a more detailed internal plan that is not part of the offer, but the acquired company must have enough knowledge of the plan to facilitate the postacquisition process.
- Minimize the length of time of the acquisition process and the number of people involved.
- Research thoroughly the customer base of the company under consideration, directly or through a third party—the most unpleasant surprises will usually be in this area.
- Recognize that key customers and staff will leave regardless.
- Recognize that, despite any plans to the contrary, there is always a postacquisition down period.
- Recognize that the acquisition process will be made more difficult as time progresses, due to the increasing competition for better acquisition targets as the larger companies become more aggressive acquirers and as mid-sized companies increasingly become acquisition targets.
- Be cognizant of product/services life cycles, and don't overvalue companies and or technologies because they are currently in favor.

  Pursue overlooked bargains with hidden technology, quality management, and a good reputation.
- Evaluate companies for potential clashes in corporate cultures.

3. A Potential Acquiree Should

- Prepare accurate and detailed financial statements.
- Produce a believable plan based on prior experience and well-researched market factors.
- Demand a postacquisition plan as part of the offer.
- Value the company in realistic terms but recognize that acquirers will attach subjective parameters based on factors such as new industry capability (for them), advanced technological knowledge, geographic location, etc. Therefore, initial valuation should be high.
- Minimize the length of time, people involvement, and number of companies considered. Acquisition is a draining and potentially destructive process.

- Obtain personal financial plans for key executives and investors as part of the process.
- Recognize that the acquisition process is essentially a selling process on both sides.
- Evaluate potential cultural clashes that could be counterproductive to operations.
- Seek acquirers with complementary strengths.
- Because of the longer-term appreciation potential from stock, consider this as a form of payment from some larger companies if you perceive them as growth oriented.
- Examine management buyout opportunities if your company has particular undervalued assets such as real estate, excess cash reserves, or strong recurrent maintenance revenues.

All major information services companies, or those aspiring to be considered as such, should have an active, structured acquisition program.

III

Impact of Acquisitions on the Information Services Industry

III

Impact of Acquisitions on the Information Services Industry

A

Historical Assessment

The character of the information services industry has undergone a number of basic changes reflecting the expansion in the number of information services technologies since the industry's inception more than 30 years ago. The original information services companies of the 1960s included batch-processing service bureaus and software development companies.

In the 1960s, timesharing companies developed which offered a third-party processing capability for newer commercial computer applications.

Beginning in the late 1960s, a few of these companies initiated geographical and services expansion programs, marking the beginnings of a mergers and acquisitions movement in the information services industry.

Since the late 1960s, acquisition activity in the information services industry has grown steadily. Primary objectives have been similar to those related to acquisitions in many other industries: Product/services and market expansion, improved efficiencies of operations provided by economies of scale and/or through the elimination of duplicate overhead facilities, the opportunity to acquire undervalued assets, and reduction of risk through diversification.

The early 1970s also marked the beginnings of the independent off-the-shelf standard software product industry, with pioneers such as Informatics General and Management Science America providing new, unbundled standard applications software products for the mainframe hardware environment. The mid-1970s also saw the beginnings of the turnkey systems industry (the forerunner of today's value-added reseller marketing channel), in which vendors bundled computer systems and applications software solutions into a total package product offering.

In the early- to mid-1970s, the movement to deliver information on-line was initiated by companies such as Lockheed Corporation with its internal Dialog group.

The next major new-product group in the information services industry—standard software packages for the commercial and industrial end-user and home computer environments—was a by-product of the microcomputer revolution of the early 1980s.

The early 1980s also marked the beginnings of a booming Initial Public Offerings (IPO) market in the information services sector, including many personal computer software companies. The publicly traded companies had the advantage of obtaining the capital required to address high-growth markets, which helped make equity financing an attractive alternative to debt financing.

The strong stock market acceptance of PC software companies as well as hardware-related companies in the early 1980s also led to a swelling in the number of venture-capital-sponsored companies in these areas. Simultaneous with a peaking in the growth rate in personal computer sales in 1984-1985, a shakeout began in the hardware and software sectors of the personal computer industry.

Another major software phenomenon that bridges the 1970s and 1980s was the rise of relational data base management systems and other application development tools. The mini and micro RDBMS markets are still in a relatively high-growth phase.

In the late 1980s, many of these product sectors of the information services industry are now showing signs of maturing, with growth rates having peaked in the mid-1980s. Maturity is the case, for example, for many of the software products markets.

- The acceleration of risk capital funding of high technology in the 1980s also led to some redundancy in many industry subcategories and also partially contributed to the shortening of product life cycles in the information services industry. Related to this redundancy has been some significant shakeout activity in many sectors of the information services industry in the past few years, a phenomenon likely to continue as a major industry issue for the next few years.

This has also created buying opportunities of innovative technology and customer bases for the well-capitalized market leaders.

- Product maturity is also contributing to an accelerated rate of product/services diversification activity among many of the companies—to provide for continued growth opportunities and to reduce the risk of product obsolescence related to a single-product market focus.

The highest growth rate product/services potential in the information services industry, as identified by INPUT, is in systems integration/ professional services and network/electronic information services. This high rate reflects in part the requirements to integrate the various functional areas of corporations and government that have been automated in recent years, and the insatiable demand for timely information.

Systems integrators, in particular, require the ability to provide a multitude of products and professional services; many of the leading companies in this industry sector have gained such capability in recent years through aggressive acquisitions programs. Examples include Computer Sciences, Computer Task Group, and more recently the Regional Bell Operating Companies (RBOCs).

Mergers and acquisitions among software product companies have been in a high-growth mode as well in recent years. High growth here reflects more the maturing of various industry sectors, and the ability of the stronger companies to maintain high growth rates by leveraging their marketing and services capabilities with acquired product.

In addition, the merger and acquisitions activity in processing services appears to be going through a period of renewed acceleration beginning in the mid 1980s, associated particularly with the banking, thrift, and medical services industries.

As the information services industry matures, with annual growth rates in many sectors having peaked by the late 1980s, INPUT projects that the growth rate in mergers and acquisition activity will continue to accelerate into the early 1990s. The relatively low valuations placed on some of the older technology sectors and on many smaller companies (overlooked by the institutional investor) are also providing potential bargain acquisitions.

B

Analysis of Recent Acquisitions

There is no comprehensive source of information on all merger and acquisition activity in the information services industry. Many private deals are not reported, and the size of many transactions is not revealed. Private sources on merger and acquisition activity in the information services industry include: newspapers and periodicals (*Mergers and Acquisitions* journal), investment bankers, information services market research companies or on-line data base services companies.

Mergers and acquisitions activity in all industries has remained strong, showing some leveling in 1987 (reflecting negative impact from capital gains tax reform legislation effective in 1987 and the stock market crash of October 1987) and then upward movement again, particularly in dollar value, in 1988 (which could reflect the perceived existence of undervalued stocks following the crash).

INPUT estimates the total number of merger and acquisition transactions for all industries in 1988 was in excess of 3000, with the value of all transactions at over $200 billion.

1. Information Services Industry

Merger and acquisition activity in the information services industry has been in a general upward trend for many years. (The general trend for all other industries is more cyclical, with transaction volume and dollar values peaking in the late 1960s). The most recent upward cycle for merger activity in all industry sectors began in the early 1980s, and was related to such factors as a recovery in the general economy, a resurgence in stock market valuations (with improved market capitalizations of companies interested in using stock for mergers), and the more free-market orientation of the Reagan presidency.

There was some leveling in the rate of growth in 1987, reflecting the high level of activity in the fourth quarter of 1986 related to the tax reform legislation that became effective in 1987. As a result, there was a surge in merger and acquisition activity in the fourth quarter of 1986 as companies hurried to complete their deals to take advantage of the lower (maximum 20%) capital gains tax rate for 1986. However, the level of activity accelerated again in 1988.

The preponderance of transactions in the information services industry involve private companies.

The dollar value of individual information services mergers and acquisitions (a median value of $4 million in 1988) is typically disproportionately low compared to those of other industry groups, according to Broadview Associates of Fort Lee, New Jersey.

When viewing the largest mergers in all industries by dollar value, only in the past few years have information services companies made the list. See Exhibit III-1.

Among the larger acquisition targets in the information services industry in recent years have been several professional services/systems integration and network/processing services companies

Some of the larger information services dollar transactions in the middle market segment in 1986, 1987, and 1988 are included in Exhibit III-2.

EXHIBIT III-1

INFORMATION SERVICES COMPANIES AMONG LARGER MERGERS IN ALL INDUSTRY SECTORS

Acquirer	Acquiree	Value
1984		
General Motors	Electronic Data Systems	$2.50 billion
1986		
Citicorp	Quotron Systems (turnkey systems)	$650 million
1987		
Computer Associates	UCCEL Corp.	$820 million
1988		
Dun & Bradstreet	*IMS International	$1.59 billion
Prime Computers	Computervision	$465 million
Ford Aerospace	BDM International	$400 million
Knight-Ridder	DIALOG Information Services	$350 million
EDS	M-TECH	$350 million
Nynex	AGS Computers	$275 million

*IMS International's revenue base can be classified in both the integrated marketed services and information services industry categories.

EXHIBIT III-2

MIDDLE MARKET DOLLAR VALUE TRANSACTIONS IN THE INFORMATION SERVICES INDUSTRY

Acquirer	Acquiree	Value
1986		
Emhart Corp.	Planning Research Corp.	$210 million
U.S. West, Inc.	Applied Communications, Inc.	$120 million
Reuters Holding PLC	Instinet Corp.	$100 million
Bell South Corp.	Dataserv, Inc.	$95 million
National Education	Deltak	$85 million
1987		
National Education Corp.	Advanced Systems, Inc.	$245 million
Contel Corp.	Equatorial Comm. (turnkey systems)	$55 million
First Financial Management Corp.	Endata, Inc.	$55 million
First Financial Management Corp.	First Data Management Holding Company	$40 million
1988		
Computer Associates	Applied Data Research	$170 million
Cincinnati Bell	Vanguard Technologies	$70 million
Software AG	Software AG Systems, Inc.	$65 million
Informix Corp.	Innovative Software	$60 million
First Financial Management Corp.	Appalachian Computer Services, Inc.	$45 million
H&R Block, Inc.	Access Technology, Inc.	$35 million

Source: INPUT

The acquisition price for privately held companies is generally not reported. Of approximately 40 transactions in 1987 and 1988 tracked by INPUT and for which pricing information was available, the mean price/revenue ratio was approximately 1.5. The range included ratios from as low as 0.3 for a smaller company (revenues of $5 million) in the professional services market sector, to as high as 4.3 estimated 1987 revenues (for the CA acquisition of UCCEL in 1987). Higher ratios (in the 3.5 range) were also accorded data base network services companies such as Lockheed's DIALOG Information Services (acquired by Knight-Ridder) and IMS International (acquired by Dun and Bradstreet). Ratios below 0.50, in some cases, were for companies in particular need of an acquirer.

INPUT believes that the overall level of merger and acquisition activity in the information services industry, particularly among the small-to-midsized companies, could accelerate over the next several years due primarily to the maturing of the market and the consolidation activity that will follow a shakeout in several industry subsectors. As the industry growth rate slows, mergers also help increase the growth rate of the acquiring company. In addition, as growth slows, companies can start to build cash, which increases the appeal of companies with large cash reserves as targets as well as provides excess cash for takeover activity.

Hostile takeovers historically have not been a factor in the information services industry, due in large part to the perception that a friendly merger was required to help retain the employee assets of the information services companies. The year 1988 witnessed the first significant numbers of hostile takeover activity: MAI/BASIC FOUR's pursuit of Prime Computer, Prime Computer's acquisition of Computervision, Digital Communication's unsuccessful pursuit of Ungermann-Bass, and Daisy Systems' acquisition of Cadnetix.

Another phenomenon is the increasing acquisition activity in recent years by larger corporations with product and service concentration outside the information services sector. These larger corporations are seeking diversification through the acquisition of information services companies. The large corporations include AT&T, the RBOCs, GTE, Dun and Bradstreet, American Express, and General Motors. Acquisition targets are concentrated in professional services/systems integration and network/electronic information services.

Many of the larger information services companies in recent years have become repeat buyers in their industry. For some companies—such as Automatic Data Processing, Computer Associates, Computer Task Group, First Financial Management Corporation, and Sterling Software—this represents more of a continuation of a longer term trend. More recent accelerated acquisition activity has been shown by Computer Sciences, Electronic Data Systems, Equifax, FI Serv, Keane, National Computer System, and Sungard Data Systems.

Principal targeted information services sectors have been software products, professional services/systems integration, and processing/network information services companies.

Examples of such activity include:

- Automatic Data Processing
  - InstantTeller
  - Several bank payroll processing services
  - ROI Systems
  - Bunker Ramo Information Systems Business

- Computer Associates
  - UCCEL
  - BPI Systems, Inc. (Micro)
  - ADR
  - Atrium International Systems
  - Integrated Software

- Computer Task Group
  - Applied Management Systems, Inc.
  - Scientific Systems Services
  - Central Computer Systems, Inc.
  - Data Force, Inc.
  - Documentation Resources, Inc.
  - Berger Vernay and Co.

- Electronic Data Systems/GM
  - MTech
  - M&SD
  - 20% Interest in National Advanced Systems

- Equifax
  - 14 information services acquisitions in fiscal 1988

- First Financial Management
  - American Automated
  - Endata
  - Appalachian Computer Services, Inc.
  - Retail Merchant Credit Card Processing of Manufacturers Hanover
  - First Data Management

Exhibit III-3 includes delivery mode breakouts of mergers and acquisitions acquisition activity as a percentage of total information services merger and acquisition activity in 1987 and 1988. This Exhibit is based on INPUT's records of transaction activity.

EXHIBIT III-3

INFORMATION SERVICES MERGER AND ACQUISITION TRANSACTION PERCENTAGES BY DELIVERY MODE

	1988 Percent	1987 Percent
Professional Services/SI	23	18
Application Software Product	29	32
Systems Software Product	15	13
Processing Services	16	18
Turnkey Systems	12	14
Network/Electronic Information Services	5	5
TOTAL	100	100

Specific trends include:

- Professional Services/Systems Integration acquisitions currently show the strongest incremental growth of any of the Information Services Industry subsectors.

- The average size of such transactions is also increasing, as reflected in the following group of more-recent acquisitions of professional services/systems integration companies:

  - Ford Aerospace/BDM International
  - Oracle/Falcon
  - Emhart/Advanced Technology/PRC
  - CSC/Index Group
  - NYNEX/AGS Computers
  - Computer Horizons/Technical Resources Group

- Software products companies continue to represent the largest number of acquirees. This pattern reflects the relative size of the software products companies (combined applications and systems software represent the largest subsector of the information services industry); the relative maturity of many software products segments, which can provide bargain market valuations; and interest in particular niches that represent higher-growth markets, such as vertical software application products.

This interest is coming from computer systems companies and professional services/systems integration companies, as well as other software companies seeking growth through expanded product capability.

- Acquisition interest in application development utility software products also appears to be accelerating. Particular examples include Computer Associates' acquisition of ADR, CA's recently announced acquisition of Cullinet Software, and the number of CASE products alliances.

- The strong interest in professional services, application development tools, and communications software products reflects the dynamic market opportunities in multivendor implementation capability and in providing custom software products.

- Companies in all the information services industry sectors are buying market share by acquiring companies in their own industry, usually in a complementary geographic market—i.e., processing services for banking and thrift institutions and turnkey systems companies in the CAD industry subsector.

- Considerable interest in the information services industry is coming from outsiders such as the computer systems companies and the RBOCs.

  Computer systems vendors' acquisitions of information services companies—such as Apple Computer's recent acquisitions of Network Innovations and Orion Network Systems and Tandem Computer's acquisition of Integrated Technology, as well as several equity interests that have been established in information services companies by computer systems companies such as IBM and Hewlett-Packard—could represent the beginning of a major trend of information services companies acquisitions by computer systems vendors. This, in part, reflects the pursuit of a total solutions product offering by computer systems vendors.

- The first major union of equals in comparable markets occurred with the Morino Associates and Duquesne Systems merger. This merger is likely to represent the beginning of a longer-term trend of mergers where product offerings are complementary. The benefits include improved efficiencies in R&D, reduced corporate overhead, and better distribution.

- Robust acquisition activity has continued in processing services/network services, particularly in the financial services and medical industries.

  Examples include:

  - FIServ/GESCO (Financial Services)
  - EDS/MTech (Financial Services)
  - CyCare Systems/Databill (Physicians)
  - GTE/Keystone Technologies (Medical Claims)
  - FFMC/FDMC (Financial Services)
  - Knight-Ridder/Dialog (Network Services)

  Acquisition interest in the processing and network services reflects in particular the benefits of economy of scale in operations characterized by a high level of fixed costs.

- A continuing interest in turnkey systems companies is exhibited in the Unisys acquisition of Convergent and Prime's takeover of Computervision.

- Foreign buyer activity in the U.S. information services industry is also increasing. Contributing factors include:

  - The recent relative decline in the value of the U.S. dollar
  - The perceived increasing globalization of information services markets
  - More-liberal foreign accounting standards on goodwill expensing
  - Strategic long-term technology/product/market positioning

- The principal interest in the U.S. information services sector is by foreign professional services, software products, and network/electronic information services companies targeting similar industry subsectors in the U.S. The major foreign acquirers by country in the U.S. in all industry sectors (in order of value of investment) are the Europeans, Canadians, Australians, and Japanese.

Some of the more-active foreign companies in the U.S. information services market include:

- Cap Gemini Sogeti (France)
- SD-Scicon (United Kingdom)
- SHL Systemhouse (Canada)
- Computer Power Group, Ltd. (Australia)

A sample of some of the recent foreign acquisitions of U.S. information services companies is presented below:

Acquirer	Acquiree	Industry Sector
1988		
Elsevier NV	FPL Group (units)	Network IS
Eur. Airline Consort. in UAL's Covia Unit	50% interest	Network IS
Thorn EMI PLC	Financial Trading Systems, Inc. (unit of Drexel Burnham)	PROC/PROF
SHL Systemhouse	Software Conversion Business of Rand Info. Systems	Prof/SI
SD-Scicon	Systems Control	SI
Maxwell Communications	Macmillan	Network IS
1987		
Dowty Group PLC	Datatel	AP. SOFT.
British Airways PLC	Bedford Assoc.	PROF
ASA International, Ltd.	Micro-MRP, Inc.	AP. SOFT.
1986		
CAP Gemini Sogeti	Consulting Div. of CGA Computer, Inc.	PROF

The pending acquisition of a Belgium-based professional services firm (CIG Intersys Group) by Computer Sciences Corp. could represent the beginning of a more aggressive purchase of European companies by U.S. professional services/systems integration firms in anticipation of the probable 1992 European Common Market unification. CSC has also taken a 9% stake in Inforum, Inc., a British professional services company.

C

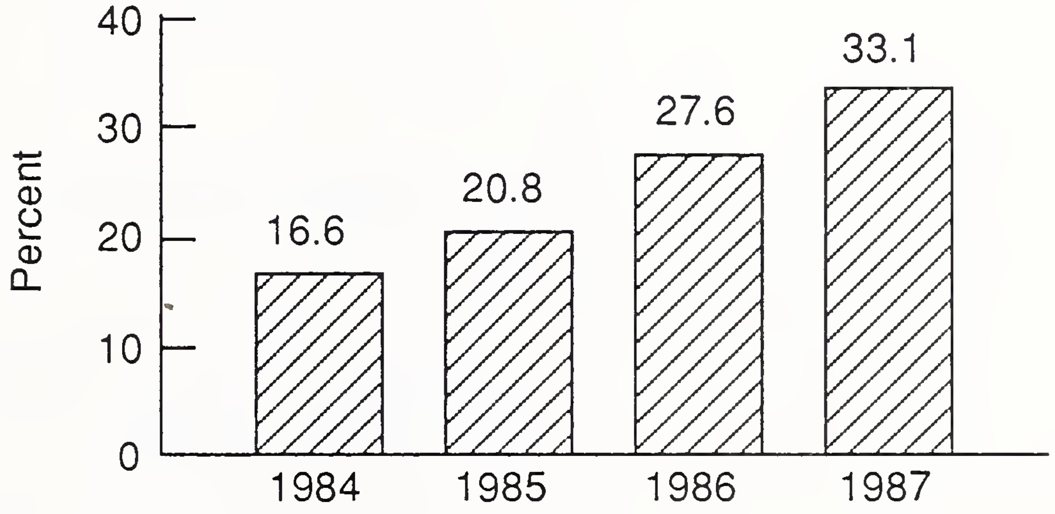
Effect of Acquisitions on Market Structure

Acquisitions in the information services industry have had an impact on the market share structure.

- In recent years, this impact has been particularly evident in the professional services subsector, as shown in Exhibit III-4.

EXHIBIT III-4

COMBINED MARKET SHARES, 1984-1987
Top-10 Professional Services Vendors*



* Based on combined commercial/federal professional services revenues

Several larger information services firms that have made multiple acquisitions in recent years have not only increased their market share but also strengthened their positions with regard to future market share capture.

- The most successful firms have also been able to realize synergistic benefits from their acquisitions as measured by compounded annual growth in EPS in excess of the five-year compounded annual growth rate for most of the companies. This growth rate also suggests that for the most part acquirers may not pay excessive prices. (New product introductions and economic cycles also are impacting factors.) See Exhibit III-5.
- Specific benefits can also be defined in a number of other ways:
  - Short-term stock price appreciation for both the acquirer and acquiree
  - Longer-term incremental growth rate increase for the acquired companies' products under the new corporate umbrella

EXHIBIT III-5

GROWTH RATES OF SELECTED INFORMATION SERVICES COMPANY ACQUIRERS, 1984-1988

	Revenues (Percent)	EPS (Percent)
Automatic Data Processing	15	19
Computer Associates	45	66
Computer Sciences	13	21
Equifax	12	14
First Financial Management	85	46
FI Serv*	56	282

*1985-1988 (1984 -0.57 EPS)

- An acquisition's return on investment (measured on a discounted cash flow basis) in line with or exceeding a predetermined required rate of return (sometimes referred to as a hurdle rate)

- Enhanced support for the acquired company's product line

- A longer-term improvement in return on investment (equity or total capital)

- An above-average P/E ratio accorded the acquiring company, as shown in Exhibit III-6

- The companies listed above also have strong balance sheets that can support a continuing acquisition agenda.

EXHIBIT III-6

MARKET VALUATIONS OF SELECTED REPEAT ACQUIRERS IN THE INFORMATION SERVICES INDUSTRY (6/15/89)

	Multiple of F 1988 EPS
S&P 500	13
ADP	17
CA	19
EFX	23
FFMC	15
FIServ	20
CSC	17

Cash (and equivalents) as a percentage of total capital (TC), and long-term debt (LTD) as a percentage of total capital (TC), of the companies at the end of fiscal 1988 is shown in Exhibit III-7.

Industry standards for assessing the financial risk of debt instruments tend to ascribe a very high quality rating to companies in cyclical industries with a maximum LTD/TC ratio of .30, and assigned medium- to high-quality ratings to maximum LTD/TC ratios of .40 and lower.

- Acquisitions of smaller firms very often provide additional sales locations for the new parent. Locations with expanded staffing and training become multiproduct sales locations that can operate at full speed more quickly than can de-novo start-ups.

- Multiple acquisitions of smaller companies that provide services to the same industry, or that support the same cross-industry application, permit the establishment of a rapid nationwide presence.

EXHIBIT III-7

1988 FISCAL-YEAR-END FINANCIAL POSITIONS OF SELECTED IS COMPANY REPEAT ACQUIRERS (Percent)

Company	Cash/Total Capital	LTD/TC
ADP	42	20
CA	23	25
CSC	16	20
EFX	2	12
FFMC	37	40
FISV	22	27

  - Acquisitions of local or regional firms have not only provided an in-place base for newly acquired products/services, but also for other products already successfully marketed by the parent in other locations. The converse is also true: newly acquired regional or local products are eventually made available to the larger company's nationwide base.

- The investment required to fully develop new business opportunities in computer services will continue to increase. In a number of ways, this fact impacts the industry trend toward consolidation through acquisition and merger:

  - Smaller firms will be less able to compete in an industry reaching out to solve more-complex problems.

  - Small- and medium-sized companies that have reasonable current capability, but that recognize the need for higher levels of investment and longer product development cycles, will seek a larger partner to provide many forms of assistance, including the necessary funding.

D

Impact of Acquisitions on Competition

INPUT views the longer-term competitive structure in the information services industry to include the following scenarios:

- Large, nationwide, integrated information services companies will address the enterprisewide corporate applications environment, as well as the systems integration requirements of the federal government.

- These companies will continue to expand their product and services (systems integration) capabilities through a combination primarily of acquisitions and strategic partnering.

  The types of products and services capabilities will cross a number of delivery modes (software products, processing services, network/ electronic information services, turnkey systems, professional services, and systems integration) as well as vertical and cross-industry subsectors.

  Examples of companies that currently depict a move in the direction of integrated information services product and services include: Electronic Data Systems (EDS), Andersen Consulting, Computer Sciences Corp., and Computer Task Group.

- The large computer systems vendors will be the other major competitive factor in the larger corporate and federal governments, with a combination of systems integration and total solutions (bundled hardware and software) marketing capabilities. In particular, this will be evidenced by an increasingly aggressive expansion of the computer systems companies into the applications software products arena.

  There will also be an increasing requirement to provide multivendor connectivity solutions. This will require computer systems companies to work with leading standards as well as provide strong application development tools that enhance enterprisewide connectivity proficiencies.

  To obtain additional applications software and application development product capability, in particular, the computer systems vendors can also be expected to continue to increase their pace of acquisition and strategic partnering activities. This increased pace is evidenced in IBM's recent investment in Computer Task Group.

- With the expected acceleration in acquisition activity, a related trend will be increasing consolidation.

- The trend to integrated product and services delivery will have the most negative impact on single (or limited-product) medium-sized companies. The marketing and product development capabilities which will become increasingly important to maintain revenue and earnings growth will also require strong capital structures.

- There will always be opportunities for companies with new technologies and applications in niche markets. The major question is their longer term competitive viability, which will impact their ability to raise venture capital funding and to tap the public stock markets.

This would suggest a need for the larger, integrated information services vendors to provide equity funding for the smaller startup companies which have been the source of much of the product innovation in the information industry. It also provides larger companies access to the newer technologies of the smaller companies.

Another vendor phenomenon of the mid-to-late 1980s, the explosive growth of value-added resellers, will continue to provide business opportunities, particularly for vendors addressing the needs of smaller companies, as well as provide for regional product coverage for the larger computer systems vendors and independent software companies.

E

Acquisition Trends, 1989-1994

Many of the acquisitions of companies below the level of $1 million go unreported in general newspapers, trade publications, and magazines specializing in mergers and acquisitions; thus, merger activity in this group of companies is much more difficult to assess.

However, the last few years have also witnessed the beginning of acquisitions of the top-tier companies by other large companies, many from outside the traditional information services industry. This acquisition activity is creating a market structure in many areas where a few large companies are now beginning to show market dominance. This emerging concentration is particularly evidenced in the mainframe systems software market.

INPUT identified 8,200 information services companies in the U.S. market in 1988. (INPUT includes only companies with annual revenues greater than $250,000). Approximately 1800 net new companies are projected to enter the information services industry over the next five years. This net figure represents an annualized growth of approximately 4%, compared to an annualized growth rate in new company entrants of approximately 7% in the late 1980s, as indicated by INPUT's market research.

With the acceleration in the rate of acquisitions in recent years in the information services sector and moderating levels of venture capital financing, it would appear that the total number of companies in the information services companies will begin to stabilize and possibly show a moderate decline, unless a revolutionary technology appears that stimulates a major new market area, such as in the PC revolution of the early 1980s. Voice and image/video processing technologies could potentially lead to such revolutionary applications.

In 1980, aggregate revenues of acquisitions in the information services industry were approximately $690 million. The average revenue per acquisition in 1980 was approximately $8 million. In 1988, aggregate revenues of information services acquisitions (according to Broadview Associates) was $8.4 billion and represented an average transaction value of close to $20 million. INPUT projects that the size of the average transaction will not increase from this level over the next five years due to some unusually large transactions in 1988, the size of which is atypical for the information services industry.

However, INPUT projects that the largest percentage increase in number of acquisitions in the information services industry will be in the small to middle range ($25-$200 million) of companies, reflecting in large part the maturing of growth opportunities for many independent companies in this sector.

INPUT estimates the size of the total information services market in 1988 at $79.5 billion, which would represent an 18% increase over the 1987 information services market of $67.5 billion and a dollar value increase of $12 billion.

INPUT expects a consistent and increasing set of acquirers in the information services industry that represents a large proportion of the acquisition growth in the industry.

Other leading companies, which don't use acquisitions as a major source of growth, will have to grow by developing new products that increase market share positions.

F

Limits to Acquisitions—Legal and Financial

1. Legal Constraints

Historically, there have been three times when the federal government has decisively intervened to affect merger activity: the Sherman Antitrust Act passed by Congress in 1890, the Clayton Act of 1914, and the Cellar-Kefauver Amendment to Section 7 of the Clayton Act. The basic purpose of these actions was to attempt to slow the growth in size of corporations in order to help preserve the competitive market.

The Supreme Court's rulings and the Department of Justice have established guidelines on whether or not a business combination can be challenged.

The Cellar-Kefauver Act of 1950 amended the Clayton Act to include the acquisition of all or part of the assets of another corporation. In addition, several subsequent Supreme Court decisions utilized the Cellar-Kefauver amendment to increase restrictions on horizontal and vertical combinations.

In these decisions, the Supreme Court evaluated the existing level of competition and the potential competition that might develop if the acquisition did occur. Throughout the 1960s and 1970s, acquiring companies had to be wary of horizontal and vertical combinations. The pure conglomerate was the one combination that appeared to be relatively immune to inspection.

In 1968, the Department of Justice issued *Merger Guidelines,* which spelled out the Department of Justice's interpretation of what constituted valid Cellar-Kefauver Act premerger and acquisition challenges.

In 1982, the Justice Department released acquisition/merger guidelines that were designed to allow corporate America to predict when a given acquisition or merger would be challenged under the antitrust laws.

The use of these guidelines was reinforced by the issuance of the Department's revised guidelines in June 1984. These revised guidelines are based on the Herfindahl-Hirschman (HHI) Index, which represents a quantifiable measure for helping determine market concentration and whether a targeted merger would be challenged by the Department of Justice or possibly by the Federal Trade Commission for causing unfair competition in a particular market sector.

- The HHI Index is based on summing of the squares of the market share of each participant in an individual market.

- The higher the resultant value, the higher the market concentration.

  Markets with a postmerger HHI score between 1000 and 1800 might be considered concentrated. If the HHI is above 1800, market concentration could become much more of an issue.

- Theoretically, acquisitions that would cause a significant increase of concentration in markets with an already-high HHI reading would be the most sensitive.

- Other factors include the ease of entry into a market, the definition of the relevant market for potential acquisition partners (such as whether the market is relatively homogeneous or characterized by differentiated product lines), and whether one of the parties to the merger might fail if the merger did not go through.

Vendors, however, are cautioned against believing that such an index is sufficient to forecast acceptability of an intended transaction. In actuality, the process by which antitrust authorities evaluate mergers and acquisitions is highly subjective.

- Mergers and acquisitions in the information services industry have not received many significant challenges.

- For example, the Department of Justice reviewed the Computer Associates and UCCEL merger (two companies in similar IBM mainframe systems software product markets) and didn't require any modifications.

- The continuing success of a large number of startups in many information services market sectors, which suggests that the information services industry is not currently overly concentrated, could also be a contributing factor.

- Another factor that probably reduces challenges is the large percentage of the total available market, particularly in software, that is still represented by in-house-developed product. Thus the market share percentage held by leading players, when measured in the context of the available market, could be significantly less than when measured in the context of the existing market.

Under the Reagan administration, the Department of Justice appeared to have restricted its interpretation of what constitutes potential monopolistic combinations. This Justice Department attitude could be related to a changing perception of what constitutes a particular market size and thus degree of concentration. This attitude could also reflect an increased awareness of the globalization of markets.

In the fall of 1988, the Department of Justice issued *Antitrust Enforcement Guidelines for International Operation.*

- These guidelines are intended to provide businesses engaged in international operations with practical guidance concerning Department of Justice international antitrust enforcement policies and procedures.

- All prior antitrust laws and their interpretations are included in the 1988 guidelines.

- There is little in U.S. antitrust laws that restricts the acquisition of assets in the United States on the basis of national origin of the investment, with the exception of airline acquisitions and acquisitions of U.S. broadcasting stations. However, a provision of the Omnibus Trade and Competitiveness Act of 1988 authorizes the President to intervene in mergers or acquisitions if intervention is required to protect U.S. national security interests.

- Types of mergers analyzed in these latest guidelines include: merger of a U.S. firm and a foreign firm, merger analysis involving trade restraints, acquisition of a foreign potential competitor, and merger of two foreign firms.

- With the increasing globalization of markets, the ability of foreign firms to provide a competitive balance to anticompetitive moves by U.S. firms in U.S. markets is creating some political pressure to further relax U.S. antitrust laws to help U.S. corporations compete, in particular, against Japanese corporations.
    - One of the principal changes advocated would be to allow competing firms to enter into joint-production agreements.
    - In 1984, Congress updated the antitrust law to permit joint research ventures among competing firms. This permission led to the creation of high-tech consortiums, such as Sematech, in the semiconductor industry.
    - Opponents to such a move charge that the relaxation of antitrust laws under the rationale of spurring U.S. competitiveness will only stifle competition by helping to create conglomerates in the electronics and information services industries.

For all industries, merger and acquisition activities that have created particular legislative concern have been hostile takeovers (oftentimes in conjunction with leveraged buyouts) and the acceleration in size of more-recent foreign acquisitions, the latter of which has lead to Congressional committee review.

- Much of this activity has not involved the merger of competitive firms and has thus been somewhat outside the realm of the antitrust laws.
- In 1985, a number of court decisions dealt with hostile takeover issues. In particular, lock-up options for potential white knights in takeover battles were ruled invalid. This ruling was probably a stimulant for subsequent raider activity.
- In 1988 significant hostile takeover activity in the information services industry began.
- State legislatures to date have taken the most action in dealing with hostile takeover issues. Recently the issue has been raised in the State of California legislature; this action could lead to a more specific examination of the issue in the context of the high-technology industries.

A 1985 tax ruling also addressed an earlier issue of using cash transactions and the purchase accounting method to allow for full depreciation of assets in excess of fair market value. This ruling provided a tax advantage over pooling-of-interest mergers. Under the ruling, asset values in excess of fair market value are considered to be goodwill and thus subject to goodwill accounting rules.

This ruling would also indicate that any management decision on the buyer's side must be based on a valuation and allocation of purchase price that will stand up in the eyes of the IRS; otherwise, substantial loss of tax savings and cash flow may result.

2. Financial Limitations

Another major limit to acquisitions is the availability of funds.

- A potential weakness in the financial services sector is the rather significant levels of junk bond assets of certain banks and insurance companies. If a severe recession develops, these assets could become a significant liability, and potentially this liability could have longer-term ramifications for the commercial debt markets.

- A higher inflation rate environment, which is projected by INPUT, could also lead to a tighter overall credit environment.

- Many of the smaller technology companies, according to Input's research, prefer cash buyouts. This preference could put restraints on acquisition programs for small- to mid-sized firms that are using current cash reserves to fund heavy requirements for product development and marketing. The use of stock for acquisition purposes can often lead to significant earnings dilution, which is unacceptable for public companies.

- There is somewhat of a multitiered stock market valuation for information services companies, based to a large extent on institutional sponsorship of particular companies.

    - As a result, certain information services companies that are currently in favor among the institutional investors because of their current high growth and earnings outlooks can be overvalued for the longer term and are probably thus too pricey as takeover targets.

    - However, many companies with technological capabilities that could be very competitive with those of the market leaders don't have the capital resources to maximize their product potential. Since the stock market crash of October 1987, there are a number of such companies that have not regained stock market favor and could represent very attractive buyouts. In many cases, it might be much cheaper to buy these companies for their technology, rather than build the products from scratch.

- A trend in recent years in the information services industry is the acquisition of information services firms by companies outside the industry, which suggests no lack of demand for information services acquisitions.

- Probably the principal financial limitation for information services companies today is the apparent decline of interest by venture capitalists in the early-round financing of new technologies. Such investors have become extremely selective in what they will finance, which is probably somewhat related to the weak IPO stock market over the past two years. Thus many privately financed younger companies will probably be forced to seek growth funding through the merger route, which can make for attractive prices for companies looking to acquire newer technologies in the information services sector.

  In particular, a variety of industry sources have indicated that high-tech venture capital investments have come down relative to other industry groups. One factor is the decline of returns on investments in recent years compared to the early 1980s.

  A June 5, 1989, article in the *San Jose Mercury News*, in California's Silicon Valley, recently included a list of Silicon Valley companies that had recently received an additional round of venture capital financing. More-mature start-up ventures such as these are attracting much of the current interest from Venture Capital Funds. It is also interesting to note the type of information services technologies being funded:

  - Manufacturing shop-floor control (plant information management systems)
  - Advanced text information management systems
  - CASE tools
  - Artificial-intelligence-based technologies, such as natural languages, expert systems, and object-oriented programming
  - Digital image processing
  - Programming tools for implementing cooperative processing systems
  - Video animation and graphics systems

- Foreign companies in the past few years have had some rather significant advantages over U.S. companies in pursuing U.S. acquisitions. In addition to the depressed value of the U.S. dollar, these advantages include:

  - The benefits of more-liberal goodwill tax accounting in foreign countries
  - The potential use of ADRs (American Depository Receipts) in acquisitions, which can provide unique tax advantages

- INPUT believes that the combination of a probable undervalued dollar, the fact that the U.S. is the world's largest market, and the existence of bargain opportunities in the information services sector, will cause foreign investments in this industry to continue to increase over the next five years.

G

Impact of New Industry Entrants

A basic role for new industry entrants will continue to be that of pioneering new markets and new technologies.

A significant difference between the 1990s and the 1980s will be the 1990s' requirement for unique products that represent niche expansions, rather than an abundance of companies in similar product niches and funded by excesses of venture capital chasing markets identified by earlier market entrants.

- Strong, proven management teams will be required of startups to gain the backing of venture capitalists and other sources of capital funding. Many institutions providing startup money to new ventures in the mid 1980s received very meager returns on their investments.

- As previously indicated, more seed money will probably be required by the major integrated information services companies

Many of the new technology innovations will probably continue to come from the major research universities, as has been true in the past. However, much of this university-derived technology was a by-product of defense grants. If there are cutbacks in this area, grant financing will have to be supplemented by corporate largess.

Consortiums of competing companies, along the lines of Sematech in the semiconductor industry (but possibly with more-direct alliances with the federal government), may become another major source of new-product innovation.

As previously indicated in Exhibit II-1, INPUT projects that there will be approximately 1800 net new entrants in the Information Services industry over the next five years, the vast majority of which will not grow beyond the $10 million category over the longer term under their own resources. INPUT projects the category of under $10 million in revenues will represent approximately 80% of the total number of information services companies' transactions over the next five years. This percentage is down from the estimated 85-90% level in the recent history of acquisition transaction activity in the information services industry.

H

Leveraged Buyouts and Other Considerations

The smaller companies in the information services industry—with their heavy cash demands for product development, manufacturing, and marketing infrastructures—for the most part are not generating excess cash or do not have undervalued fixed assets that could be used to finance a leveraged buyout.

However, in the mid-sized range, there is growing management buyout activity.

- Ross Systems, a company with a substantial share of the VAX/VMS financial software market, was sold by its parent company, Rossdata, to a group of private vendors led by former Management Science America executive Dennis Vohs, who became Ross Systems' CEO. Rossdata has always been a privately held company. One of the investors is Ross Systems' chairman, Ken Ross. He was also part of a second Rossdata company bought out by management recently—Virtual Microsystems, a computer networking company.
  - A rationale provided for the buyout was to allow the company to pursue a more aggressive growth strategy.
  - Ross Systems' revenues in fiscal 1988 are estimated to be in the $20 million range, which represents 50% estimated growth over the prior year. Ross officials were quoted as saying the company was also profitable at the time of the buyout.
  - Other investors funding the transaction included the venture capitalists Welsh, Carson, Anderson and Stowe; Citicorp; Morgan Stanley & Co.; and Greylock Management Corp.
- Mainframe data base developer Computer Corporation of America (CCA) finalized a management buyout from its partner Crowntek, Inc. in late 1988. Crowntek put CCA up for sale in 1987 after a period (since 1984) when the company had attempted to broaden its product offering. The company was also faced with the competitive impact from IBM's DB2 product offering.
- In the spring of 1988, CCA employed approximately 400 people worldwide, with revenue estimated in the $45 million range.
- Triad Systems recently announced that a management buyout was being evaluated. This announcement in turn fueled an attempted buyout of the company by Volt Information Sciences—an attempt that was recently terminated.

- Triad Systems probably represents the archetypical technology company for future management buyout programs. Triad, a leading turnkey systems supplier to the automotive parts dealership market:
    - ° Showed revenues in fiscal 1988 of $127.4 million, representing an annual growth rate of 9%, which is in line with the general industry for turnkey systems
    - ° Is a cash generator (up 19%) between 1987 and 1988 to $42 million, with book value per share at the end of fiscal 1988 of approximately $11.00 per share (which had been within the company's recent stock price trading range)
    - ° Has substantial real estate assets (valued at the original purchase price on the balance sheet) in the attractive San Francisco Bay real estate market
- Companies in more-mature markets—that is, companies that generate excess cash and are candidates for some restructuring—could be future candidates for management buyouts.
- However, highly leveraged buyouts of high-technology firms are usually not appropriate, in that major assets sales to reduce debt are usually not possible, cash flow for debt service may be low, and R&D costs as a percentage of sales may be high if the new management is intent on remaining competitive. However, the intent may be liquidation of assets, which involves an astute assessment of potentially realizable inventory and receivables values, in particular.
- Companies that have a significant recurring revenue base in service and maintenance revenues could also become takeover candidates because of their more dependable cash flows.

Another type of merger and acquisitions activity that will likely become more commonplace in the future in the middle market range is merger activity among equals. The most prominent example of such a merger in 1988, a merger that was viewed very favorably by analysts, was between Morino Associates and Duquesne Systems. This merger allowed the companies to combine complementary product lines, a move that will help provide critical mass to improve production and marketing efficiencies.

INPUT believes that one particular information services industry subsector that could continue to generate acquisition interest is application development tools. INPUT projects that this sector will represent one of the fastest growing software markets over the next five years, and includes a number of small- to mid-sized companies with considerable degrees of product overlap in many subsegments. However, many of the larger computer systems companies—in particular, those that have demonstrated strong interest in increasing their software product capabilities—have considerable product gaps in these areas.

- Communications (networking) software companies that can provide multivendor connectivity solutions could also continue to be acquisition targets, particularly until the OSI communication standard has been more fully implemented, which could take several more years.

- The larger processing services companies could also continue to be active acquirers in order to sustain higher growth rates through increases in market share.

IV

Acquisition —The Acquirer's Viewpoint

IV

Acquisitions—The Acquirer's Viewpoint

A

Survey of Acquirers

Ten acquiring companies were interviewed for this report. All of these companies are repeat acquirers of information services companies and represent leading companies in their respective industry sectors. The sectors include processing/network information services (3 companies), telecommunications services (3), professional services/systems integration (3), and venture capital investments in a wide variety of information services technologies (1).

Most of the respondents have in-house M&A departments, and all have been frequent acquirers in recent years.

The specific respondents were, with three exceptions, executives in charge of corporate development and with responsibility for advising on the corporate acquisition process. The other three were a managing partner, a company president, and a chief financial officer.

The combined information services revenues of the respondents' companies were approximately $31 billion in 1988.

The respondents have made close to 105 acquisitions in the information services industry in the past four years, with aggregate revenues estimated at $2.8 billion.

Also reflected in the information acquired from this group of respondents is the increasing pace of acquisitions by companies new to the information services industry.

In terms of satisfaction with acquisitions, the respondents were obviously prone to some bias because, in many cases, they had been responsible for the acquisitions. However, respondents could generally be characterized as very satisfied with the acquisitions. Over the past four years, of the 70 acquisitions specifically evaluated, 67% were characterized as successful, 27% rated as neutral or unknown; and only 6% seen as failures. Another respondent indicated that of the seventeen acquisitions his company had made since the mid 1970s, only two had not worked out.

- A particular measure of success frequently cited was profit levels above preacquisition expectation levels.

- Failure was most frequently related to a lack of a proper implementation plan or a poor cultural fit.

In 80% of the 70 acquisitions rated, the respondents felt that representation by the acquired company was good. Fourteen percent of the respondents viewed representation by the acquired company to be bad.

Satisfaction with the management of the acquired companies was ranked slightly lower, with approximately 75% of the respondents indicating they thought the acquired management was good and 21 indicating they thought it was bad.

Subsequent performance of the acquired companies was rated good in 74% of the cases, and bad in 17% of the cases.

Others with no specific opinion on postacquisition representation and performance issues were classified as indifferent.

B

Nature of Acquisition Process

Of the ten companies analyzed, six had formal acquisition programs, and four had a combination of formal and informal programs. All companies had some plan.

Only two of the nine respondents had established a formal "kitty" to make acquisitions. However, many of the others indicated that sufficient funds were available for the right opportunity. Sources of funds included: open bank lines of credit, treasury stock, cash reserves, long-term debt, equity, or a combination appropriate to the circumstances.

As to why these companies are interested in acquisitions, three themes dominated the responses:

- Growth

- The filling of product and services gaps in current product offerings, which was also correlated with more-efficient product development, improved time to market, and acquisition of experienced management in various industry segments

- Survival as a major player in an industry that in the future will be dominated by "a few large, well-run companies"

The nature of the particular acquisition strategies was more varied:

- As a tool for implementing the general corporate business plan
- As part of a systematic acquisition program for venture capital portfolios
- To strengthen position in various regional markets
- To garner additional market share
- As part of a systematic effort to identify complementary services and management teams interested in working within the acquirer's operating and delivery methodologies

Individual factors that respondents felt determined the potential for success of an acquisition included:

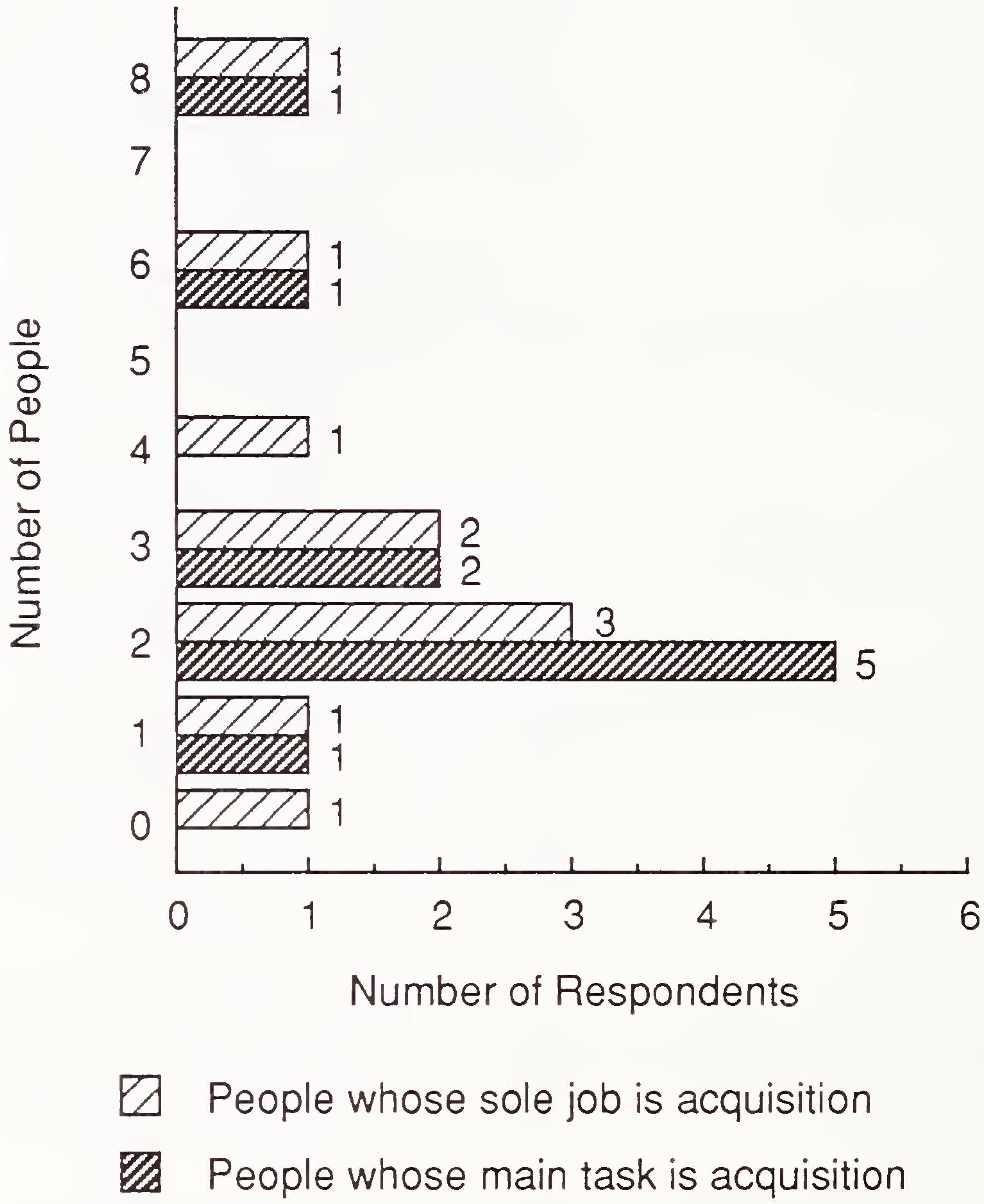
- "Objective review and valuation by corporate development group; acquisition of companies that have a strategic fit; and no unfriendly takeovers"
- "Mostly good management"
- "Quality of the target property; target company's similarity to our own"
- "Ten-step screening process inclusive of having operational and financial tests up front"
- "Degree to which the acquired company is consistent with our overall strategies, and the degree to which management can apply time and effort to implementation of the merger. Also, the degree to which we can harness the senior management of the acquired company to operate the business as part of our operating methodology"

Seven of the ten respondents had at least one person dedicated to the acquisition process—the Vice President of Corporate Development or the Vice President of Planning. For two of the companies, which were somewhat smaller in revenue size, the president and CEO directed the acquisition process.

As shown in Exhibit IV-1, one company has eight people who are mainly committed to acquisitions. The highest number of respondents (5) had two people whose main task is acquisition, but presumably have other corporate assignments as well.

EXHIBIT IV-1

RESPONDENTS' NUMBERS OF ACQUISITION STAFF



Note: Each respondent gave one response in each of the above categories.

To be competitive, in a general sense, a company should have at least two people committed to the process.

- In addition, there needs to be a trained group of support people, primarily attorneys and accountants.

- A major reason for the success of the acquisition programs of several of the leading companies is the availability of such people.

Just the physical number of contacts made by the respondents requires a dedicated staff.

- As shown in Exhibit IV-2, one of the respondents contacted up to 1,000 companies a year, and six of the eight respondents contacted 50 or more potential acquirees on a yearly basis.
- The company with only three contacts on an annual basis is in a specific vertical market with a much more limited potential targeted acquisition group.

The number of companies seriously considered was typically lower by an order of magnitude from the number contacted.

- For the respondents, the average was one formal proposal for every three seriously considered.
- The close rate after proposals was approximately 55%.

EXHIBIT IV-2

ACQUISITIONS INVESTIGATED BY RESPONDENTS

	(Number in One Year)			
Respondent	Contacts	Companies Seriously Considered	Formal Proposals	Closes
1	500	30	10	5
2	1,000	100	20	8
3	100	40	10	5
4	50	25	20	14
5	15	7	7	5
6	3	6	6	3
7	50	10	5	3
8	100	25	5	3

C

Form of Acquisition Consideration

The principal forms of acquisition consideration are categorized below:

- Six of the eight respondents used cash for at least 90% of their acquisition payments.
- The one company that primarily used stock as an acquisition vehicle also used a combination of stock and other payment forms in 20% of its deals.
- One used 2/3 cash and 1/3 stock split as the principal payment structure.
- Six of the eight respondents sometimes used earnouts as part of the payment structure.

Attitudes were split nearly equally on whether they believed the methods of acquisition changed in recent years and on whether there will be significant future changes:

- One respondent mentioned the impact of the repeal of the General Utilities doctrine in the tax law. This repeal raises the taxation rate of many deals from approximately 30% to 56% and thus requires restructuring of previous deal formulas.
- The other two respondents that perceived changes in acquisition methodologies alluded to the more structured acquisition processes put in place at many companies in recent years.

D

Finding Acquisitions

Respondents considered that, on average, between 50 and 55% of their successful acquisitions were made from contacts they initiated, with approximately 20% coming from acquirees and 25% initiated by brokers.

Only two of the ten respondents reported no use of brokers. One of the companies reported that 50% of its successful acquisitions were from broker contacts.

- As shown in Exhibit IV-3, the attitudes toward broker services was mixed, with the general tone being somewhat neutral. The primary value of the broker appeared to be in locating potential acquirees.
- The variation in quality among brokers appeared to be a reason why they are not more frequently used.

EXHIBIT IV-3

RESPONDENTS' COMMENTS ON USE OF FINDERS AND BROKERS

Respondent	Comment	Fee Scale
1	"Some use of brokers"	1.5-2%
2	"Use all the major investment brokers and some brokers and consultants—mostly to firm up ideas—we handle the rest."	Lehman Formula
3	"Some are very good and some are less than acceptable. Really depends on the individual finder. We don't require much because of our international resources."	Varies
4	"Level of quality varies greatly."	-
5	"Finders and brokers can be helpful in locating companies in new geographic markets but only at the identification stage. They are of little use."	Flat rate of 1% of the total
6	"We see many transactions over the transom—and finders/brokers generally don't do sufficient homework."	Standard Wall Street broker fees—on a negotiated basis
7	"Don't like to use brokers—only use them when they have been hired by the seller and then would rather not."	-
8	"We tried a broker once. We find the screening process poor and the fees high—would like qualified leads on a commission basis, if acquisition is finalized."	Do not know—probably a percent of the price
9	"We do not normally use finders; we have our own mechanisms for finding leads. Finders can be useful for preliminary screening efforts. We occasionally use finders abroad."	Depends on work done—other modified Lehman formula
10	"Yes."	1.5-2%

Fee scales for brokers were varied:

- The Lehman formula was mentioned by two of the ten respondents (5% of first million, 4% of second million, 3% of third million, and 2% of 4th million).

- A fee scale of 1 1/2-2% was cited by two others respondents; one mentioned the use of a sliding scale geared to the purchase price. The same respondent also paid in some cases a flat rate of 1% of the total price.

Sources of information (besides brokers/investment bankers) used to identify prospects were outside directories, including those of INPUT and Computer Intelligence; Dow Jones (on-line) and internal data base files; company financial and product literature; trade associations; Wall Street research reports; business colleagues; and local market as well as industry knowledge by company management.

E

The Acquisition Process

The acquisition process consists of search, evaluation, negotiation, and close. The search process among six of the nine respondents was between two weeks and five months. One company indicated that its search/evaluation period for particular targeted companies could last several years. Exhibit IV-4 shows length estimates.

The evaluation stage among all the respondents averaged about 2 1/2 months.

The negotiation stage shortened to an average of approximately 50 to 55 days, with the closing stage approximately 50 days.

In terms of the total length of the process, one of the nine respondents in the processing/network information services market indicated the typical length of the acquisition process took from two to nine years.

- Another company, in the telecommunications services market, indicated it experienced significant variety in the length of the process.

- The four operating companies with the smallest revenues of the ten respondents, with current revenues in the $70 million to $200 million range, indicated the shortest length of the acquisition process, approximately 3 1/2 to 9 months.

- The respondent with the largest revenues (over $10 billion) indicated a continuous search process. However, the evaluation to closing period typically took from 7 to 10 months.

EXHIBIT IV-4

RESPONDENTS' ESTIMATES OF LENGTH OF ACQUISITION PROCESS

Respondent	Length of Process (Months)				
	Search	Evaluation	Negotiation	Close	Total
1	3	2	1	1	7
2	3	2	1	1	7
3	Continuous	3-6	3	1	7-10
4	12-84	6	3-6	3-6	24-102
5	2	1	1	1	5
6	5	1	2	1	9
7	3	2	1	2	8
8	Varies greatly from deal to deal				
9	0.5	0.5	0.5	2.0	3.5

- One respondent, with current revenues of approximately $500 million, indicated a typical 7-month total time for completing the typical acquisition process.

The length of the acquisition process among this sample group, particularly when measured from the evaluation through the close stages, would suggest that speed is regarded by several companies as vital. One of the public companies in this group, for example, took only 90 days typically to complete the evaluation through closing process.

Only four of the nine respondents had a precise breakout of the costs of the acquisition process as distributed among the various acquisition stages. Of these companies, three indicated that the closing stage was the most expensive or equal to the maximum level of any other stage. The other company indicated the evaluation stage was the most expensive and represented 60% of the total acquisition process costs.

Total costs per acquisition, when specified in absolute amounts (rather than percentages), varied from $14,000 to $350,000. One respondent with current revenues of approximately $500 million indicated that costs per acquisition typically range between $50,000 and $350,00.

As shown in Exhibit IV-5, top management of an acquiring company is invariably involved in the close along with the acquisition function (the Department of Corporate Development, etc.). Most companies also use their top management at some time before the close as part of the selling function.

EXHIBIT IV-5

STAGE OF ACQUISITION PROCESS AT WHICH RESPONDENTS' DEPARTMENTS ARE INVOLVED

Department	Stage at which Departments Are Involved (Number of Respondents)			
	Search	Evaluation	Negotiation	Close
Internal				
Top Management	3	5	8	7
Board of Directors	1	2	-	3
Acquisition Function	7	8	7	8
Planning Function	3	3	2	2
Company Attorney		3	6	6
Technical Staff	3	7	-	-
Financial Staff		7	2	3
External Research Department	2	3	1	1
Outside Attorney			2	7
External Auditor		3	2	3
Financial Advisors	2	4	3	-
Brokers/Consultants	6	5	2	1

On the other hand, the role of the Board of Directors is more that of program ratification. However, it was surprising that of the seven corporate respondents (all public companies), the board of directors was involved in the closing process of only three companies. A fourth company indicated that the board of directors was involved in the final approval process for deals over a certain revenue size. The eighth respondent was a private partnership, where all the partners were involved in each stage of the acquisition process.

Companies with a central planning function tended to involve the members in all acquisition phases. The corporate attorney was involved primarily in the negotiation and closing. Few companies waste time with negotiation and closing beforehand.

However, it is important to involve the financial people relatively early in the evaluation stage. A much smaller portion of the companies keep financial people involved through the closing negotiations.

As shown, the most frequently used outside service is an outside attorney.

The next most frequently used outside service was brokers/consultants, which were used by the majority of respondents in the search and evaluation stages.

In terms of principal cost factors for an acquisition, personnel and external legal costs were the largest factors. The costs were weighted approximately equally, if brokers' fees are excluded.

- Legal expenses averaged about 25% and personnel costs 23%. Compared to a similar mergers and acquisitions study done by INPUT ten years ago, the personnel cost factor has come down substantially relative to other costs, from 50%. The decrease in cost possibly indicates the greater relative level of legal expenses in the acquisition cost formula.

- Accounting costs averaged 18% and travel about 13%.

- Other expenses, including brokers and consultant fees, typically represented 28% of total costs.

Confidentiality is regarded as very important by respondents from the viewpoint of protecting their interests and of protecting their prospects' interests. However, opinion varied as to whether confidentiality was currently a company problem.

Specific comments about methods of controlling confidentiality were:

- "Initiated nondisclosures for employees"

- “Used code names and released information on a need-to-know basis”
- “Our own people sign internal confidentiality agreements.”
- “All information is kept within a small group.”
- “Internally, the only individuals aware of the potential acquisition are the individuals involved. On the company being acquired, we will handle confidentiality according to their request.”
- “As a public company, confidentiality is bred into our operating practices.”
- “We hold a special meeting to sensitize all the involved people. We keep the team very small.”

F

Methods of Acquisition Evaluation

Many of the respondents were reluctant to provide specific details on their valuation methodology. As shown in Exhibit IV-6, respondents generally put revenues, growth potential, and type of software/service offered at the top of their lists. Several respondents volunteered management quality and operating cash flow as other important evaluation criteria.

Net income and net worth ranked lowest, which is probably more indicative of the early stage of maturity of many potential acquirees, where income and book value are very much potential/future measures of value.

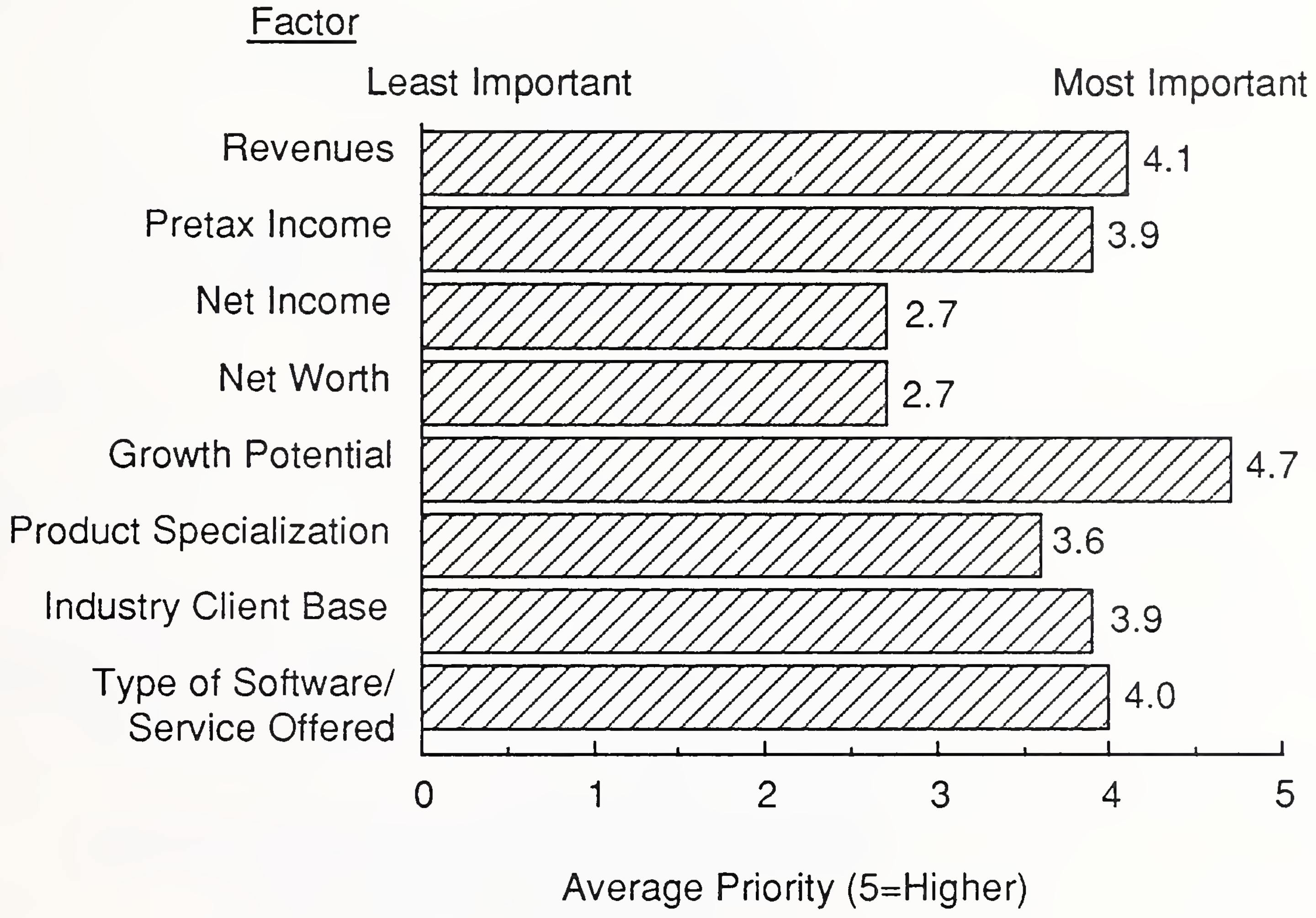
Growth potential received the highest individual ranking by each respondent.

Actual valuation data were sparse and, where specifically indicated, the formula used and years covered were quite varied.

- Several mentioned that there was no specific formula, and that the valuation process differed significantly among acquisition targets.
- Two of the eight respondents indicated that discounted cash flow was used, one with a six-year payback period and another based on an eight-year period.
- Only one of the eight companies used revenues alone in the valuation formula. This formula was based on a revenue stream over a 1-2 year period.
- Another company indicated that its formula is tied both to revenues and profits, projected over a three-year period.

EXHIBIT IV-6

RESPONDENTS' PRIORITY RATINGS OF ACQUISITION EVALUATION FACTORS



- Where revenues were indicated as part of the acquisition valuation formula, the revenue multiple varied from 0.5 to 2.

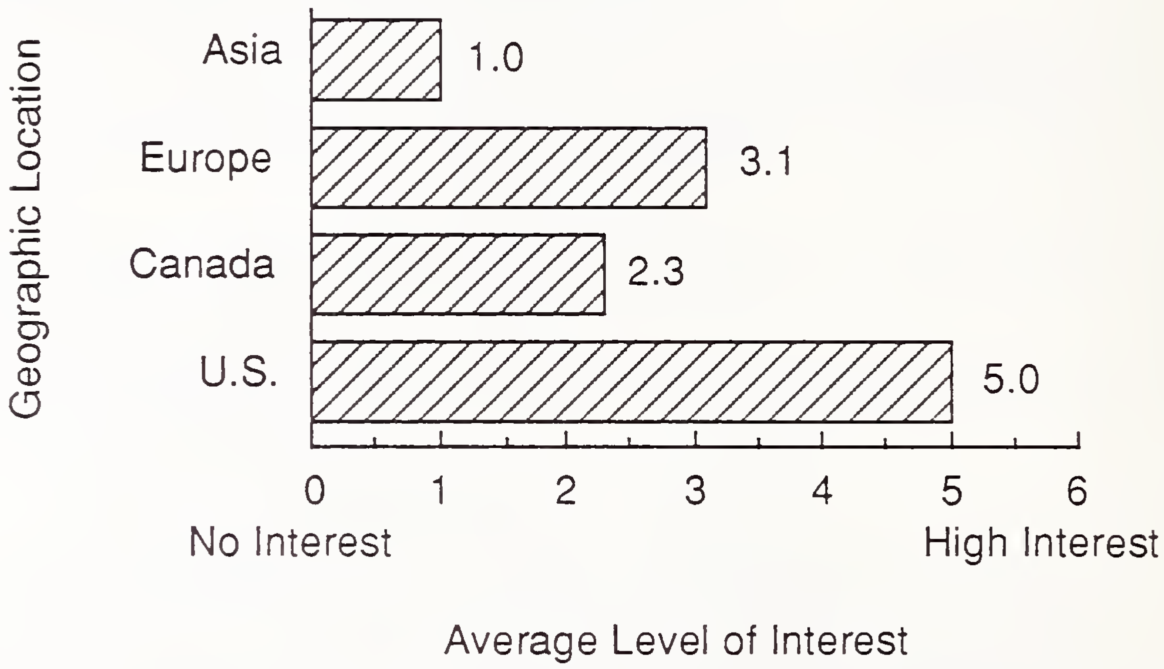
G

Respondents' Current Acquisition Interests

All the respondents were interested in U.S. acquisitions, as indicated in Exhibit IV-7. Interest in European companies was also high, particularly among telecommunications and network/electronic information services respondents.

EXHIBIT IV-7

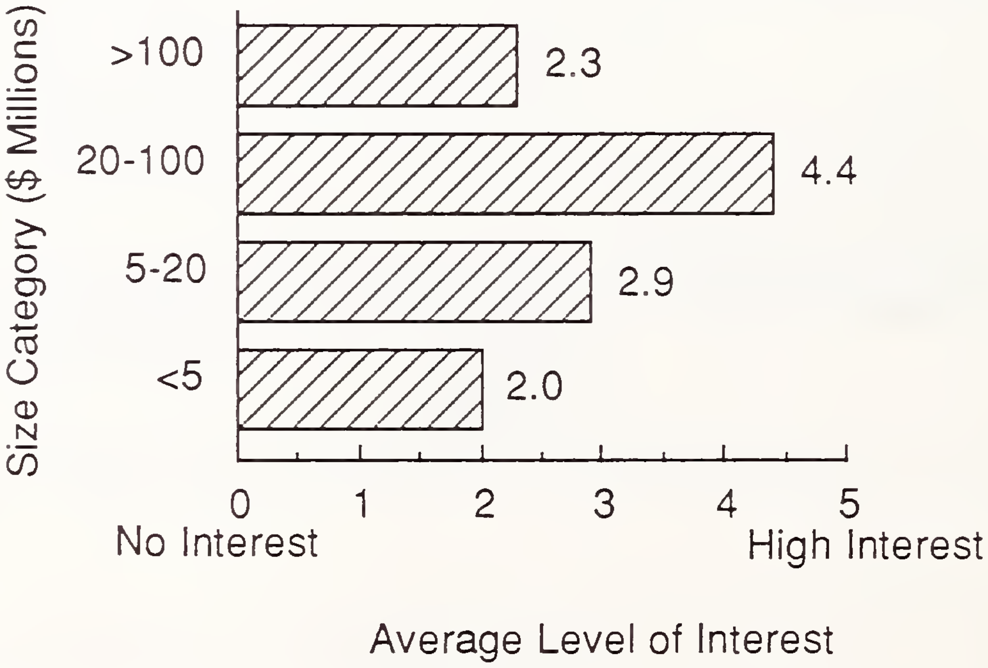
RESPONDENTS' PREFERENCES FOR GEOGRAPHIC LOCATION OF ACQUISITION



As shown in Exhibit IV-8, the twenty-million to one-hundred-million dollars-per-year companies are ranked highest in terms of desirability, with the less-than-five-million-dollar category ranked lowest.

EXHIBIT IV-8

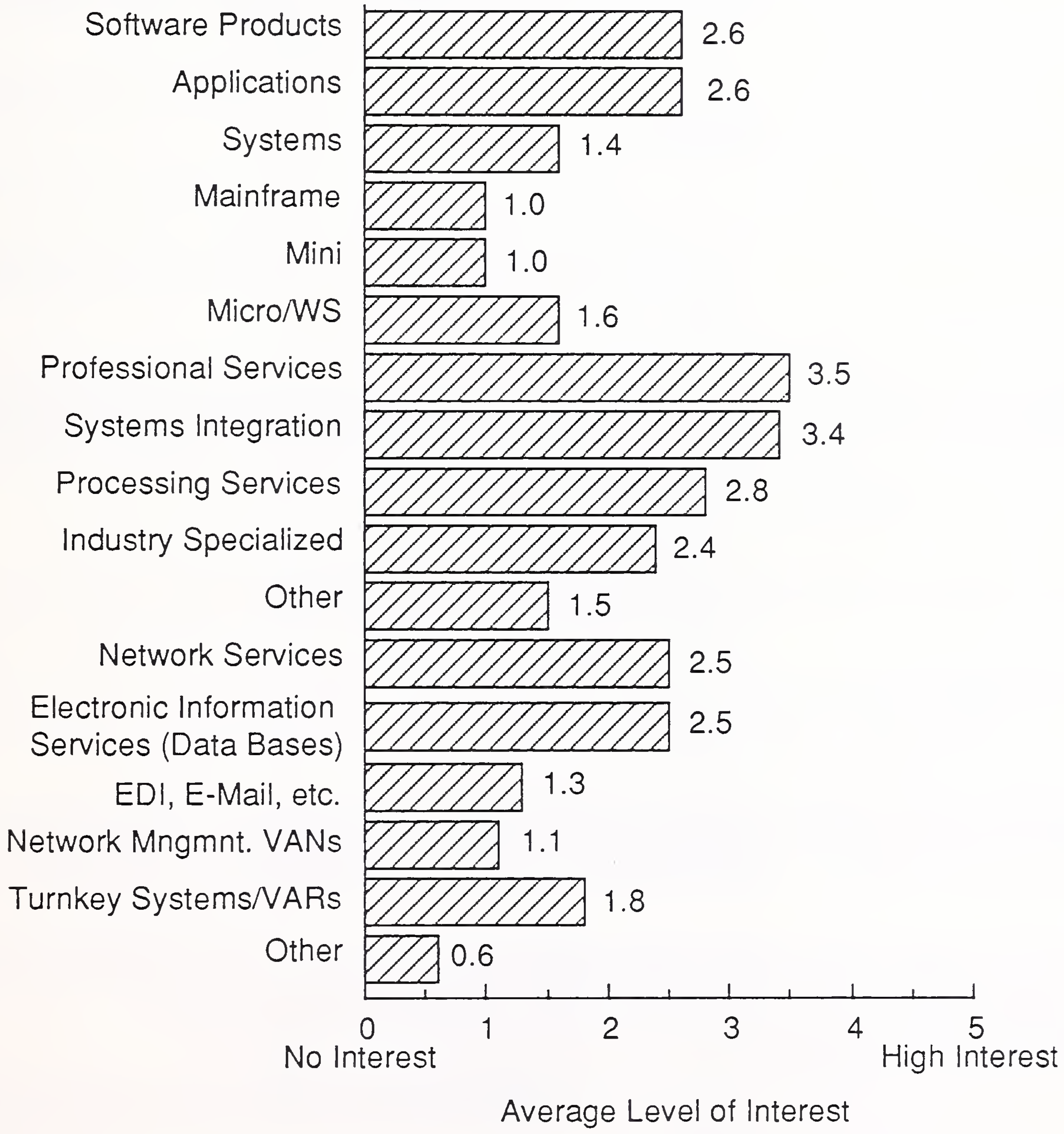
RESPONDENTS' PREFERENCES FOR SIZE OF ACQUISITION



As indicated in Exhibit IV-9, professional services and systems integration companies showed the highest level of interest among respondents. INPUT therefore expects to see much more acquisition activity in these market sectors by the major acquirers in the near future.

EXHIBIT IV-9

RESPONDENTS' PREFERENCES FOR TYPE OF COMPANY



H

Respondents' Evaluation of Competition in the Acquisition Field

The RBOCs were most frequently mentioned as acquisition competitors. The Big 8 accounting firms and other companies in the professional services/systems integration industries were also considered to be strong competitors.

Other companies or company groups mentioned by the respondents included: Dun and Bradstreet, EDS, Computer Sciences, American Express, and First Financial Management Corporation.

Characteristics cited as strengths of perceived competitors were: substantial cash resources, aggressive acquisition stance, quality reputation/image, and knowledge of their industries.

Weaknesses of the perceived major competitors were in two particular categories:

- Larger companies can be slow to react to acquisition opportunities.
- Acquisition targets could perceive that they would lose their identity if acquired by a large company.

I

Respondents' Views of Acquisition Trends

Nine of ten respondents indicated consolidation as a principal continuing trend in the information services industry. Particular comments on current mergers and acquisition activity were:

- "Software industry is consolidating."
- "People are analyzing shareholder value much more extensively; market multiples are very high."
- "Greater consolidation in the smaller segments as major players emerge"
- "Most acquisitions in past years were the result of a unique situation (death of a CEO, a business in trouble, etc.). Today acquisitions happen with healthy companies trying to survive long range."
- "Smaller companies cannot compete with the larger professional services organizations. They lack resources for infrastructure investment, recruiting, training, and benefits for employees."
- "The smaller firms are all hitting a plateau, with calls for investments to grow, and most don't want to take this out of the principals' income."

- "Among the large-scale systems integration companies, there will most likely be continued consolidation as several larger players absorb the lower levels. The nature of large-scale systems integration will preclude all but the largest players. As SI builds a reputation as 'where the action is', a number of peripheral players, specifically the RBOCs, are at various stages of entering or leaving the market. This actually will slow down as the successful companies rise to the top."

Seven of the nine respondents specifically indicated they thought the acquisition trend would accelerate over the next five years, while only one thought it would decelerate on the basis that current acquisition activity has caused information services companies to become overvalued and that many of the more desirable smaller companies have already been acquired.

- The particular industry sector projected to show the most acquisition activity was commercial systems integration.

Most viewed consolidation positively. Specific comments on the impact on the information services industry were:

- "The big will do better, and the smaller will have a tougher time."

- "More success than in the recent past. Some parts of the industry will grow significantly."

- "Those in the acquisition mode will grow rapidly and, if managed properly, will dominate their markets in future years."

- "The quality of services provided will increase along with the cost of these services."

- "Stronger companies will emerge; pressure on earnings will be intense; new technologies (CASE) will change worker composition."

- "Few major players will have the major market shares; the rest will be niche players. Large players will also form alliances for the international market. Alliances will speed growth and fuel success for the industry."

- "The impact on the industry will be positive in that the surviving merged organizations will be, by necessity, high-quality organizations in order to successfully compete. The systems being installed will be of much greater complexity, at least from the integrator's point of view, and will be much larger."

Views on the impact of mergers and acquisitions on the vendor structure of the information services industry by 1994 were quite similar. Particular comments were:

- "Only the fittest and largest will survive."
- "There will be several large players in each niche dictating the terms of competition."
- "Fewer, stronger vendors."
- "Vendors will only deal with those who have staying power."
- "Vendors will find they no longer have 30 to 60 professional services to choose from and that instead of dictating maximum rates, vendors will negotiate rates."
- "Smaller industry, tighter margins, new needs to differentiate. Consulting and systems integration will be key."
- "By 1994, a number of major players will be quite well defined and will, to greater or lesser degrees, all be focused on systems integration for the delivery of systems, including the hardware vendors."

J

Postacquisition Implementation

In the post-acquisition areas, management and operations were regarded as the most difficult problem areas. Difficulties encountered included:

- Agreeing on common goals
- Question of who will remain
- Customer service support
- Personnel concerns at new company

Solutions suggested to these problems included:

- Communication
- Finding out who stays before announcing the deal
- Joint planning
- Development of special programs for integrating people

Channel conflict was also cited as a postacquisition difficulty. A solution was devoting more time to premerger planning.

Product development was not perceived as posing significant postmerger difficulty. However, an emphasis on standardization, central planning, and market evaluation of needs was perceived as a way of minimizing product development transition difficulties that might arise.

Seven of nine respondents had formal postacquisition plans.

- Another indicated it is working on one.

- The one company with no plan and apparently none in development had revenues in excess of $1 billion.

The majority of the respondents indicated a change in the benefit plans of acquired companies within one year following the acquisition.

- Only one indicated that the benefits were seldom changed.
- Particular comments on procedures were:

  - "Our policies are used, with changes in the compensation package to make up the difference, if any."

  - "To the degree possible, all practices are converted to our standard at the time of the acquisition. In some cases, for example, sales incentive programs are geared to a cyclical sales pattern in the acquired company. The changeover may occur at the end of that period."

K

Respondents' Opinions on the Acquisition Process

Many of the respondents made specific remarks on precautions to take in implementing acquisition programs. Specific remarks included:

- "Communications links between other corporate officers and corporate development must be continuous."

- "You must back good management people who have a strong market position, and you cannot overpay."

- "Pay close attention to the people needs—communicate, communicate."

- "Postacquisition plans need to be revised after you find what you have."

- "Be careful, don't overpay, don't venture into the unknown."

- "Needs a lot of management attention and a plan to merge the two companies together."

- "Develop detailed objectives, strategies, and acquisition criteria, and stick to them."

- "Don't look for or expect bargains. Pay for quality."

- “People are the number-one asset.”
- “Don’t force a match.”
- “Identify the attributes that you as an acquirer bring to the combination. If there doesn’t seem to be any value added to the acquired business by the acquirer, the acquisition is probably not a good one.”
- “It’s all in the people after the announcement. It’s in principal comfort before the announcement.”

V

Acquisition—The Potential Acquiree's View

V

Acquisition—The Potential Acquiree's View

A

Survey of Potential Acquirees

Ten independent companies in the information services industry responded to this phase of the study.

- The chief executive or president was the respondent in six cases.
- The other respondents included a chief financial officer, controller, executive vice president, and vice president of marketing.
- Industry sectors represented include: turnkey systems (2); professional services (1); systems software products (3); and applications software products (4).
- Current annual revenues of these companies range from approximately $2 million to over $80 million. For the majority of the companies, current revenues are in the $2- to $15-million range.

B

Attitudes of Respondents toward Acquisition

Six of the ten respondents were considering being acquired; eight would possibly consider having their identities released to acquiring companies.

In terms of the number of approaches received by the respondents, one turnkey systems vendor reported twelve; two companies (one turnkey systems and one applications software) have never been approached.

- The median number of approaches among the respondents was 3-4.
- Only one of the companies presently considering being acquired had not been approached by a single potential acquirer.
- Two of the other seven companies presently considering acquisitions had been approached by ten and twelve companies respectively.

- There was a skewing in the number of approaches, with a few companies receiving numerous approaches; most of the others received few. This skewing probably indicates that currently certain application areas are in particular favor for acquisitions; examples are smaller companies in the communications sectors.

- The few companies that would not consider an acquisition for the most part had very few approaches in the past year.

None of the respondents completely ruled out an acquisition under all circumstances. Exhibit V-1 presents comments by each of the respondents concerning conditions under which they would consider being acquired. It lists specific dates when they would consider being acquired as well as specific targeted values (where they exist).

C

Attractiveness of Types of Acquirers

Acquisition by a large company registered the highest total score when measured by one of three top preferences for all respondents. Particular reasons included:

- "Capable of setting the standard for the industry"
- "Deep pockets and usually can remain relatively autonomous"

Respondents' preferences in acquirers are shown in Exhibits V-2 and V-3.

Acquisition by a computer equipment company, however, registered the highest number of first-choice preferences. Reasons for this preference included:

- "Would allow them to retain the most autonomy for the organization"
- "Technology matches our long-term strategic interests."
- "Our software could provide a good fit with a hardware manufacturer."

The interest in a communications company acquirer came principally from companies already participating in the communications markets. One respondent indicated a lack of interest in being acquired by a communications company because of his perception of the company's poor track record in the high-technology sector.

Those looking for an acquirer in the processing services sector were interested in companies with vertical software market expertise and a combined servicing capability.

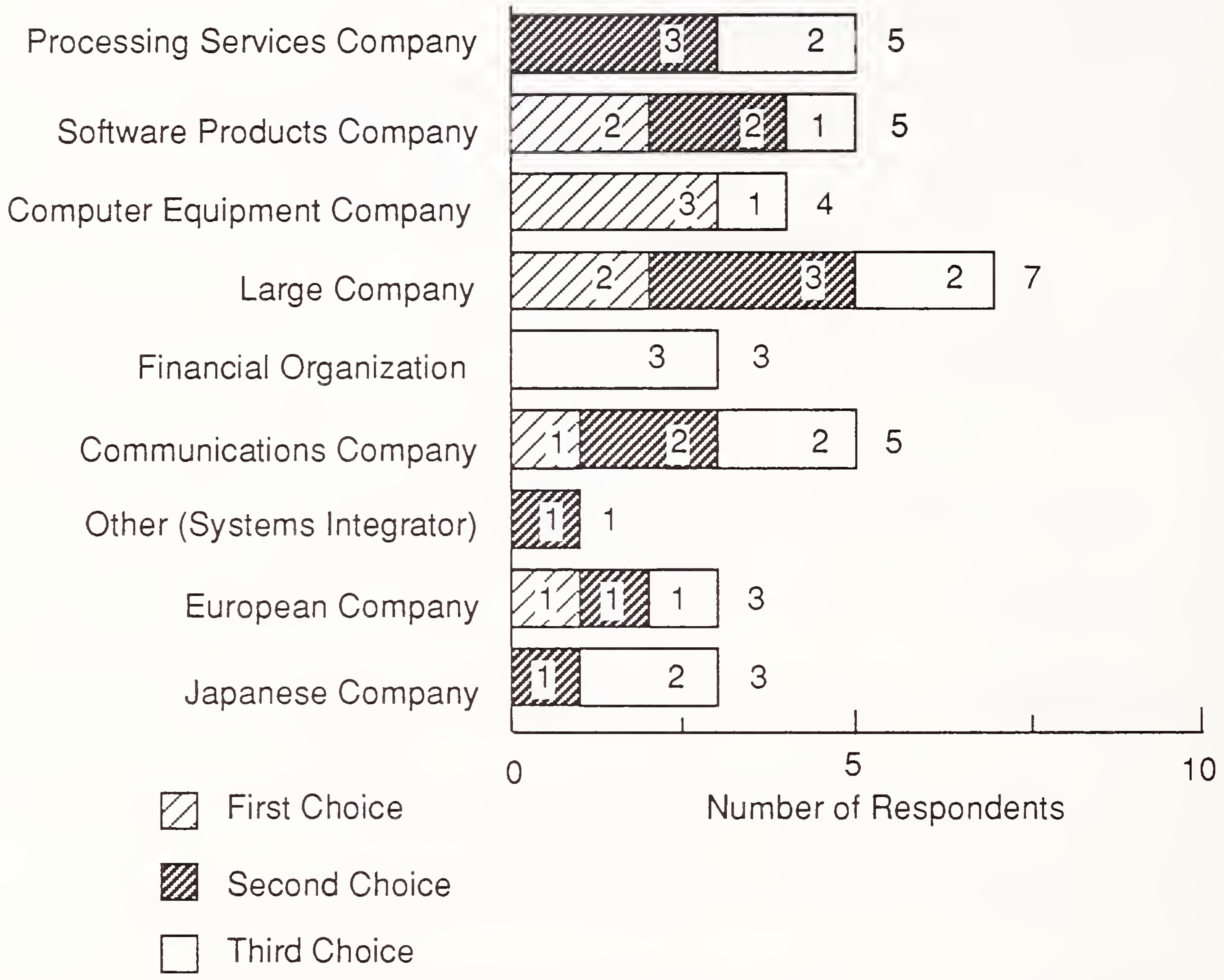
EXHIBIT V-1

RESPONDENTS' ATTITUDES TOWARD ACQUISITION

	"When would you consider being acquired?"			
Respondent	Year	Size ($ Million)	Value ($ Million)	Comment
1				If a major market/technology shift made company's scale noncompetitive..." "Premium offer with ROI greater than our 2-3-year forecast plan."
2	1989			"To gain equity financing in order to greatly expand the company."
3			100+	"Exceptionally good price." "Friendly/complementary merge of technology and culture." "Maximizes long-term revenue/product sales; potential competitive scenarios."
4	1989			"Opportune time to set an industry standard."
5	1989			"Liquidation for principal."
6	1989			"As a small/medium player we must acquire or be acquired."
7	1989			"Need for sources to grow and expand."
8				"If and when we conclude that our being linked to a major company would allow us to grow more quickly and successfully."
9	1989			"Investors desire to acheive liquidity." "Timely in terms of current positive position in market."
10			20x Earnings	"Shareholders will want an acquisition if the net present value of their perceptions of company worth is significantly lower than credible offer."

EXHIBIT V-2

RESPONDENTS' PREFERENCES FOR TYPES OF ACQUIRING ORGANIZATIONS



Financial organizations as a potential acquirer were the third choice. Particular comments that reflected why there was not a higher level of interest included:

- "Little experience in direct technology sales"
- "Where is the synergy?"
- "Different style and objectives"

The executive who indicated a high level of interest in being acquired by a European company cited the following:

- "The importance of their technology to the European market"
- "The potential in the 1992 European Common Market environment"
- "The money available in the European investment community"

Particular concerns about a potential Japanese acquirer were:

- "Incompatible management styles/attitudes"
- "Harder to execute"

Those who ranked a software products company the highest as a potential acquirer were looking for:

- New distribution markets
- A company with a strong servicing capability
- Complementary products

The highest ranking preferences in the "other" category were:

- "A systems integration company"
- "A major player in our particular market niche"

Among the software products respondents, large companies and computer equipment and software products companies were the principal first-choice preferences.

The professional services vendor had no specific acquirer preference by industry sector; rather, the dollar value of a potential acquisition was the principal screening factor.

One of the turnkey systems companies would be most interested in an acquisition by a software products company, a particular area targeted by the company as a diversification/growth strategy. The other turnkey systems vendor would prefer an acquirer from a similar market (communications). Such an acquirer could provide enhanced distribution capabilities.

Specific companies mentioned as most desirable acquirers were leading companies in related, complementary markets. Reasons, other than complementary technology, for certain specific choices included quality of management, quality of product, and company ethics.

Approximately half the respondents had no preferred acquirer.

EXHIBIT V-3

SOFTWARE RESPONDENTS' FIRST CHOICE FOR TYPE OF ACQUIRER

	Percent of Respondents
Processing Services	0
Software Products	22
Computer Equipment	22
Large Company	33
Financial Organization	0
Communications Company	11
Systems Integration	11
European Company	0
Japanese Company	0

D

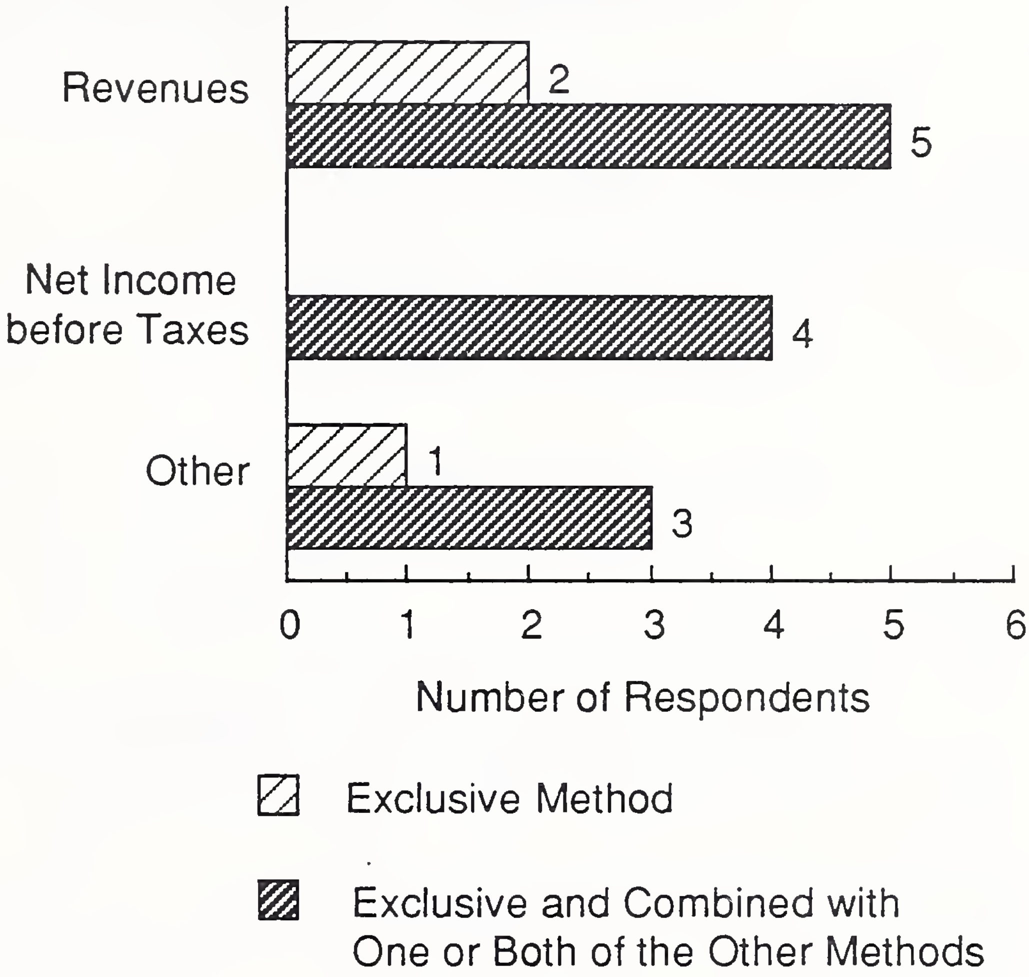
Acquisition Criteria

In terms of the way companies value themselves, revenues, among other considerations, was the preferred criterion, as shown in Exhibit V-4.

Current earnings for a young company in a high-growth mode are usually not perceived as indicative of the company's long-term valuation potential. If an earnings multiple is used, it is usually based on future earnings potential.

EXHIBIT V-4

RESPONDENTS' METHODS OF VALUING THEIR COMPANIES



The mean revenue multiple as an acquisition criterion of the respondent group was 1.5, with a range of 1–3. Details are in Exhibit V-5.

The most important factor, other than price, in an acquiring company was its growth and profitability, as shown in Exhibit V-6.

The lowest-ranking factors were geographic location and a personal relationship with the management of the acquiring company.

EXHIBIT V-5

RESPONDENTS' VALUATION FACTORS

Respondent	Method of Valuation			
	Revenue (Multiple)	NIBT (Multiple)	Year	Other Criteria
1	1-2x		1990	Cash or (other) premium over stock price
2	2x		1989	-
3	2-3x		1989	-
4				Valuation based on technological assets of company
5	1.2x	4-8x	1990	Recognition of service/maintenance support capabilities
6	Open			
7	1-2x	10-15x	1989	-
8	1.5x		1989	-
9	.5x	15-20x	Future	NPV of future cash flows, discounted at 12%

EXHIBIT V-6

RESPONDENTS' RANKING OF ACQUIRERS' CHARACTERISTICS

Factor	Number of Mentions 5=Most Important, 0=Unimportant						Weight
	5	4	3	2	1	0	
Growth and Profitability	5	3	1	-	-	2	3.6
Security of Employees	1	1	2	2	1	1	2.5
Match of Business	4	2	1	1	1	1	3.4
Stability of Previous Acquisitions	1	3	3	-	-	2	2.9
Degree of Autonomy	1	3	-	1	1	1	2.9
Personal Relationship	-	-	-	1	2	4	0.6
Geographic Location	-	1	2	2	-	2	2.0

Generalized qualities of a desirable acquirer, as evidenced throughout the respondents' comments, are summarized in Exhibit V-7.

EXHIBIT V-7

ATTRACTIVE CHARACTERISTICS OF ACQUIRERS

- Well-Capitalized (Can Support High Level of R&D Expenditures)
- Marketing Strengths
- Open to Flexible/Decentralized Management of New Technology Programs

As shown in Exhibit V-8, respondents preferred cash or a combination of cash and stock as payment for the acquisition.

EXHIBIT V-8

RESPONDENTS' PREFERENCES FOR METHOD OF ACQUISITION

	Percent of Respondents
Cash	45
Stock	22
Combination	33

Specific comments on preferred methods of payment included:

- "100% stock, to keep some upside and manage timing of personal tax problem"
- "Cash 100%, earnout possible"

- "Combination—50% stock and 50% cash; the amount of stock we would be willing to take depends on acquiring company's financial history."
- "Combination; depends on the position of the acquirer"
- "Cash is always best but would look at any reasonable combination"
- "75% cash and 25% stock"
- "Cash 100%; investors' objective is to get liquidity. If structure is such that stock is marketable, then it wouldn't matter."
- "100% cash"
- "Would be completely open to any and all options"

E

Reasons for Being Acquired

As shown in Exhibit V-9, the ability of investors to liquidate their investments and the ability to obtain additional resources for the company to expand its market share ranked highest among respondents' reasons for being acquired.

Another reason mentioned was to ensure the health of the company.

When asked whether they would use a third party to sell their company, eight indicated that they would probably do so. Particular needs addressed by third parties included:

- "To get assistance from a specialist to get a technical assessment of the value of their technology"
- "To ensure best price/terms for shareholders"
- To get specialized analytical services in the information services area
- "Only in a consultant capacity"
- "Would use an investment banker to get the best deal and ensure follow-through"

One reason for not using a third party related to the potential requirement for a payment of a sizeable up-front fee.

EXHIBIT V-9

RESPONDENTS' REASONS FOR BEING ACQUIRED

Reason	Number of Mentions by Rank					
	#5= Most Important	#4	#3	#2	#1	Weight*
Enable investors to liquidate capital	5	3	-	1	-	4.3
Meet competition	3	3	1	2	-	3.4
Obtain resources to expand market	5	2	-	-	1	4.3
Obtain investments for new products/services		3	1	-	2	2.8

*Weight calculated by multiplying number of responses to #1 by 1, to #2 by 2, to #3 by 3, and #4 by 4, then dividing by the number of respondents to that question.

F

Respondents' Views on Merger and Acquisition Trends

Many respondents focused on the pressures for consolidation in the information service industry, related to the following issues:

- Significant discrepancy between private and public market values, which is making private companies attractive takeover candidates.
- For private firms where an initial public stock offering might not be a realistic possibility, a company can go public "through the back door" by being acquired by a public company.
- Maturing markets are creating tougher competition.
- The increasing costs of software development, combined with the emergence of more-powerful direct-sales companies that have a large appetite for new product, are encouraging "buy" versus "make" decisions for new products.

Seven of the ten respondents thought that mergers and acquisition activity in the information services industry would accelerate over the next five years. Specific comments on factors influencing this trend were:

- "The small public firms will squeeze the private firms, and large supermarket-type companies will squeeze the medium-size public firms" (which will require companies to merge or be merged to survive)

- "Economic conditions should worsen in this time frame and only the strong will survive."

- "There will be a fallout of products toward standardization."

- "The shakeout will continue."

- "Much of the activity will be in the area of companies with products that fit wide markets...new players will enter with niche strategies."

Most respondents indicated they believed the impact of accelerated merger and acquisition activity in the information services industry is a positive phenomenon. Reasons included:

- "The larger companies will be able to maximize the technology of the acquired company by bringing the product to market earlier and providing stronger overall marketing support."

- "The industry sectors are going through a natural maturation process in which consolidation will help make the survivors stronger companies."

- "There will eventually be new technologies development that will foster the development of startups, with eventually new market leaders that will displace the more inefficient larger players."

One individual, however, indicated he believed that the emergence of larger companies will cause a decrease in product quality and an increase in pricing.

Respondents' views on the structure of the information services industry in 1994 are summarized in the following statements:

- "There will be few major players in each sector, with a redirection of the programs of the midtier players."

- "Software and services vendors will become increasing important in terms of product valuation versus hardware vendors, as hardware becomes much more of a generic product."

- "There will continue to be many smaller players, due to the relative ease of market entry that will continue to exist."

VI

Acquisitions—The Acquired Company's Viewpoint

VI

Acquisitions—The Acquired Company's Viewpoint

A

Reasons for Being Acquired

Fifteen companies acquired within the past three years were interviewed in this phase of the study.

The principal respondent was the CEO of the acquired company. Other company officers responding included the Chief Operating Officer and Chief Financial Officer who were still in place following the acquisition. At one company, two of their senior executives provided information on the acquisition process.

Applications and systems software product companies represented the highest number of respondents, with financial applications and communications software products companies being the most numerous. Other industry sectors represented include processing and professional services companies.

The companies ranged in size from approximately $5 million in revenues to over $200 million. Most were under $50 million in revenues.

Companies interviewed selected their particular acquirer for a variety of reasons.

- "Opportunity to provide marketing leverage for product, at the same time providing for work group continuity for existing employees"
- "Acquirer had the resources to help accelerate the growth in the acquired company's product line."
- "Business synergies along with an attractive offer"
- "Attractive price combined with agreement on future strategy"

- "Best possible business fit, along with a company culture acceptable to the acquired company's programming staff"
- "Compatible company cultures, product synergies, and longer term advancement prospects for employees"
- "An unsolicited offer"
- "A preemptive price"
- "Similar development and support concepts and compatibility of senior management"
- "The one interested party, with product synergy possibilities, following a period of searching for potential acquirers"
- "A prior vendor relationship"
- "Technical and financial strengths of the acquirer"
- "A strategic fit that also appeared to be the best deal for shareholders and employees"

Of the fifteen acquisitions, three contacts were facilitated by investment bankers; one by an outside consultant; seven by the acquiring company, with the primary initial contact from the CEO; three by the acquired company; and one company did not identifying the initial contact source.

As to whether the acquiring company would be considered a top prospect today, twelve of the fifteen indicated satisfaction with the acquisition; only one appeared to be distinctly unhappy, primarily due to a cultural misfit; one would possibly look more to the international arena for acquirers; and one would look for a larger, faster-growing company as an acquirer.

B

The Decision Process

1. Preliminary Screening

Once the acquisition process had started, respondents typically developed a range of potential acquirers.

- As shown in Exhibit VI-1, five of the fifteen companies had ten or more preliminary contacts with potential acquirers, with one having fifty initial contacts; twelve of the fifteen respondents had five or more preliminary contacts.
- Regardless of the number of preliminary discussions held, no more than three firm proposals were received by any one respondent.

EXHIBIT VI-1

NUMBER OF POTENTIAL ACQUIRING COMPANIES CONSIDERED BY RESPONDENTS

Individual Respondent Companies	Number of Potential Acquiring Companies		
	Step 1: Preliminary Discussions	Step 2: Serious Discussions	Step 3: Firm Proposals
1	4	3	3
2	4	3	2
3	15	6	3
4	5	3	1
5	6	3	1
6	25	6	3
7	7	4	3
8	1	1	1
9	10	3	1
10	7	4	1
11	6	3	2
12	50	4	1
12	12	5	2
13	5	3	3
14	1	1	1
15	6	3	2
Total	164	55	30

2. Rating of Factors in an Acquisition

Two factors that continue to dominate in the acquisition process are the opportunity to convert an investment into a more liquid form (usually cash or tradeable stock) and the ability to place the company in a better position to grow.

- As shown in Exhibit VI-2, cash or tradeable stock was rated as the most important consideration by fifteen of the sixteen respondents.

- An acquirer's being able to strengthen the acquiree's competitive position was also clearly a high priority.

- There was also a relatively high level of perceived need for a cash infusion in new-product development and for investment in capital equipment.

- Nonbusiness factors such as family or health were not considered by most respondents, while future rewards such as deferred compensation or retirement received even less attention.

Some form of employee job preservation was embodied in approximately half of the final acquisition contracts.

- Five had specific contracts for all employees.
- An additional two provided specific contracts for senior management.
- Other types of job preservation programs included:

  - Maintenance of separate operations after the merger, which minimized the terminations issue.

  - The senior management took the position, in negotiating the final deal, that all staff members were critical to the operation; thus, no special provisions on the subject had to be included.

  - The initial agreement included all employees.

  - Employees were defined as the only tangible asset, which made their importance to the deal an obvious factor.

  - One company agreed, in advance of the final terms, who would be leaving.

  - One CEO stayed with the company, in large part to help deal with transition issues.

  - None of the responding companies indicated it thought major employee layoffs were a factor in completing the deal.

EXHIBIT VI-2

RESPONDENTS' RATINGS OF ACQUISITION FACTORS

Factors	Individual Respondent Company																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
Individual																	
Cash or Tradeable Stock	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	1	76
Guaranteed Employment	2	1	0	2	0	1	5	0	4	2	3	1	1	2	3	1	28
Deferred Compensation/ Retirement	0	2	0	0	0	3	3	0	4	1	3	1	0	1	3	0	21
Corporate																	
Cash availability	1	3	4	4	3	5	4	1	3	5	5	4	5	4	5	2	58
Market Expansion	1	4	5	5	4	5	5	0	4	5	5	3	4	1	5	4	60
Stronger Competitive Position	1	4	4	5	4	5	3	1	4	5	5	4	3	5	5	5	63
Geographical Expansion	0	0	5	0	3	3	1	0	4	5	5	3	3	1	0	2	35
Investment for New Products	2	4	4	2	3	3	1	0	3	5	5	4	4	0	5	1	46
Investment for Equipment/ Other	1	2	3	0	2	3	1	0	3	3	5	2	2	2	3	1	33
Other																	
Family/Health	0	0	0	0	3	5	0	0	2	0	0	0	0	0	0	0	10
Other	0	0	0	0	0	*5	0	0	0	0	0	1	0	0	0	0	7

Key 5=Most Important 0=Not Considered

* Feeling of insecurity with venture capital

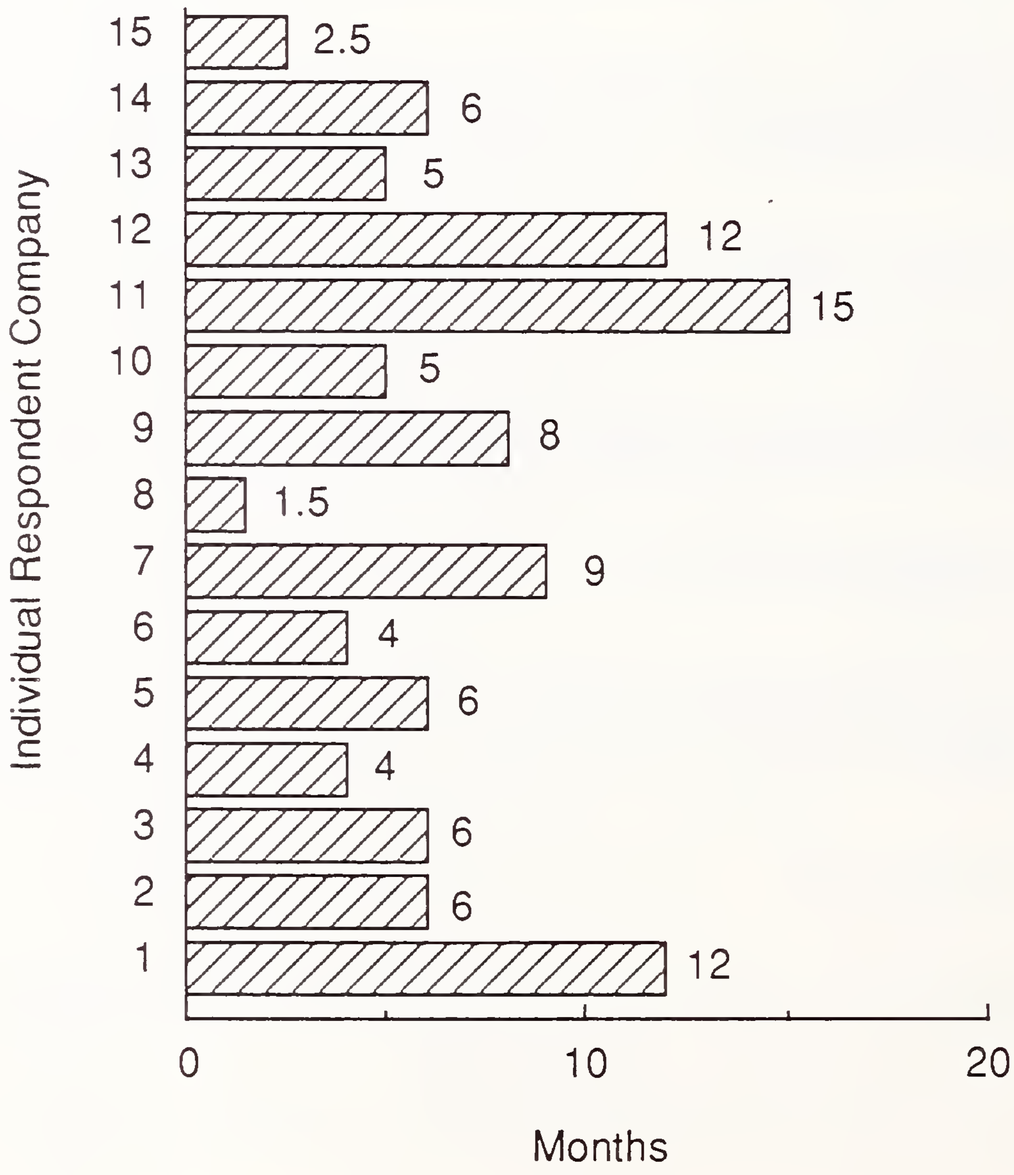
An avoidance of major layoffs among these respondents is probably partly a result of the fact that the principal asset of many such information services companies is the employees, and a result of the need to avoid alienation of key employees to prevent pre- or postacquisition failure.

3. Length and Cost of the Acquisition Process

The length of time involved in the acquisition process for most companies was well under a year, as shown in Exhibit VI-3.

EXHIBIT VI-3

RESPONDENTS' REPORTED LENGTH OF ACQUISITION PROCESS



- The mean time was 6 1/2 months.
- The maximum time was 15 months.
- The minimum time was 1 1/2 months.

The relatively short time spans involved in putting together most of the deals of the respondents did not appear to have a negative impact on postacquisition satisfaction.

- In response to the question of whether they felt the objectives of the acquisition had been achieved, thirteen of the sixteen respondents indicated an unqualified yes.
- When asked whether they would make the same decision now, twelve indicated an unqualified yes; only one gave an unqualified no. One that gave a qualified yes suggested that a better postacquisition plan would have increased the level of satisfaction.
- The company experiencing clear dissatisfaction with the acquisition results had been one that had actively sought to be acquired. This acquisition had involved one of the longer preacquisition evaluation periods, which also appeared to lead to a rather limited range of realistic choices.

Nine of the fourteen companies that responded to the particular question indicated they used a broker or other third party to help complete the acquisition.

- For public companies, the use of a third party to perform a due-diligence evaluation was particularly important. Potential shareholder lawsuits—if proper valuation processes are not performed—was an important concern.
- One company didn't use a third party because some of the company's board members were venture capitalists who could provide valuation assistance.
- Senior management of private companies cited other principal reasons for using third parties in the acquisition process: improving the time efficiencies of senior management in working on the acquisition and obtaining a final fairness opinion.

The cost of the acquisition process, in terms of key personnel time and fees, was substantial, as shown in Exhibit VI-4.

- An increasingly significant cost is legal fees, which relate in large part to the need for all parties to the negotiations to protect themselves against future lawsuits in case the deal doesn't work out satisfactorily.
- For a small company, the drain on senior manpower resources can also have a significantly impact on company performance.

EXHIBIT VI-4

RESPONDENTS' COSTS OF THE ACQUISITION PROCESS

Individual Respondent Companies	Cost: Key Personnel Time (Person Months)	Cost: Total Legal Plus Accounting (Thousands)
1	12	700
2	4+	175
3	2/3	20
4	12	100
5	20	500
6	6	42
7	8	Unknown
8	2	30
9	100	1,000 +
10	4	100
11	3	65
12	Unknown	800
13	6	100 +
14	15	100
15	36	1,000 +

- The costs for the acquiring company are in addition to those shown, so the total cost can be several times the amounts on the exhibit.

- These costs must be compared with the alternative to acquisition—starting an operation from scratch.

4. Company Evaluation Techniques

There wasn't any prevalent mode for valuing the acquired company. The various methodologies are chronicled in Exhibit VI-5.

- A relative P/E ratio—that is, using similar public company industry sector P/E ratios as a benchmark—was not an important valuation measure. This lack of importance probably relates to the fact that many of these companies were privately held, relatively young, and possibly without large enough current earnings to work with a P/E valuation model.

- One respondent mentioned that, at the time, a multiple of revenues was used, but since earnings are now greater, the company would prefer a multiple-of-earnings valuation approach.

- The most frequently mentioned valuation method was a multiple of revenues; revenue growth rate was also repeated in valuation weighting.

- A fair return to current shareholders' investments also appeared to be one of the more tangible valuation approaches—with a predetermined return on discounted projected cash flow used to determine a more precise way of determining the proper payment.

EXHIBIT VI-5

RESPONDENTS' VALUATION METHODS

- In process of going public, so used public value as benchmark (50% revenue growth, 30% pretax margin), but facing increased level of competition:
  - 2x current revenues
  - 12x current after-tax earnings
- Based on a fair return on stockholders' investment—present based on value of projected cash flow.
- Revenue multiplier
- P/E ratio, return on capital
- Range of P/E multipliers of 5-20 and cost to other company in creating the same product
- Unsolicited offer presented—so price of "maximum survivable pain"
- Revenue multiple presented on a non-negotiable basis—provided our venture capitalists with an appropriate rate of return
- EBIT—7.5x
- Strictly by what we felt we needed plus what similar deals brought
- 2.5 and revenue—at the time pretax earnings were about 16% of 6.6 million
- Projected earnings times buyer's multiple and standard calculation from broker, plus strategic value
- Growth in revenue, income, and EPS to comparable public companies both independent and acquired over the past 4-5 years.
- Revenue growth
- Revenue multiple—now would sell as multiple of earnings—since earnings now higher

C

Structuring of the Payment Agreement

Of the fifteen respondents, only two had an agreement that included an earnout provision.

- The earnouts were 25% and 33% respectively of the purchase price, with the remainder being front-end cash.
- It would appear that the industry is tending toward 100% front-end payments, either cash or stock.

Exhibit VI-6 lists the basis of payment (cash, stock or combination) for the fifteen recently acquired information services companies included in this study.

EXHIBIT VI-6

BASIS OF ACQUISITIONS
(No. of Respondents)

100% Cash	100% Stock	Combination of Cash and Stock
10	3	2

- Where cash is the incentive, it is often needed to enlarge the company, and management also frequently stays to implement growth. When stock is the incentive, often the acquired company has already achieved success (and profit), and there is a lesser commitment for the senior management of the acquired company to stay and continue to expand the company.

D

Acquired Company's Views after the Acquisition

In many cases, the acquired companies remained as independent units, an arrangement that appeared to be highly appreciated. See Exhibit VI-7.

It would appear that prematching of firms in terms of complementary cultural environments is a very important, nonquantifiable factor in fashioning the final deal.

EXHIBIT VI-7a

POST ACQUISITION INTEGRATION

Respondent Company	Year of Acquisition	Postacquisition Integration Process
1	1988	First budgeting round was dismaying
2	1988	Company including management has remained intact and operated independently with very little change
3	1987	Very difficult due to corporate cultural differences
4	1988	Little integration—subsidiaries have almost no integration with parent
5	1988	Almost no integration—still have separate business, including a board
6	1987	Parent company very sensitive to needs, cooperation level high—much earlier to integrate product lines than expected
7	1988	Fine
8	1988	Satisfactory in all regards—Due to both sides having experience in process. Senior management knew CEO and trusted—operating independently

EXHIBIT VI-7b

POST ACQUISITION INTEGRATION

Respondent Company	Year of Acquisition	Postacquisition Integration Process
9	1987	Fair—compensation left intact—but in many cases responsibilities diminished. Several left for a competitor
10	1988	Not well—parent didn't have a good reorganization plan—reorganized 6 times in 2 years
11	1987	Acquirer company had no plan. Acquiree developed plan which was accepted
12	1988	Fine—still operate independently
13	1988	Smoothly
14	1987	Very well; sales doubled the next year but 10% loss of staff
15	1988	Fine—Good people to work with
16	1988	Well—just as expected

Only two of the sixteen respondents indicated a negative feeling concerning the postacquisition integration process. The specific criticisms included diminished responsibilities of senior management and a clash in corporate cultures.

Comments on particular problem areas that did surface in the postacquisition process are summarized in Exhibit VI-8.

EXHIBIT VI-8

PARTICULAR POSTACQUISITION PROBLEM AREAS

- "The first budgeting round was dismaying."
- "Corporate culture differences"
- "Communication problems between certain departments resolved by creating some of those departments at the acquisition site."
- "Difficult to receive a reasonable level of attention for certain services at the parent company"
- "New parent company providing little resistance to the leaving of key managers of the acquired company"
- "Communication"
- "Reporting structure"
- "Big-company vs. small-company issues"
- "Employee benefits poorly handled for the acquiree staff."
- "Member of acquiree's management staff tried to destroy the postacquisition process—he was removed."
- "Issues of employment reposition programs required the dismissal of certain employees."
- "Some benefits had to be changed to conform to new corporate standards."
- "Some problems with change in financial reporting systems"

E

Respondents' Views on Acquisition Trends

Eleven of the thirteen respondents felt that the industry is consolidating, accompanied by an acceleration in the rate of mergers and acquisitions.

A summary of contributing factors includes:

- The slowing growth rate of the software industry, where sustaining individual company growth rates comes in large part from increasing market share or entering new markets through acquisitions
- More-complex product requirements and higher marketing costs due to the increasing levels of competition, that favor consolidation to save operating costs
- Federal government procurement requirements for larger, more-complex product solutions that require larger contract management capabilities

Of the eleven respondents, nine indicated they perceived the structure of the information services market in 1994 to be dominated by a few vendors in the various market sectors.

- The need for consolidation among professional services/systems integration companies was viewed as rational in terms of the product/service requirements of those markets.
- The generalized profile of the surviving vendor was that of a large, full-service company that can maximize the operating advantages of economies of scale.
- Particular concern was voiced about the dampening effect on product innovation in the software industry if smaller companies in the future find it much more difficult to compete. A responsibility of larger companies will be to help maintain a sufficient level of seed money for startups.
- One individual indicated that the future trend to consolidation could lead to fewer product alternatives because of an anticipated drive toward product standardization.
- A dissenting viewpoint on the future of the smaller company suggested that the dynamics of new technology will continue to drive the information services industry and guarantee market opportunities for the smaller company.

VII

Acquisitions—Third-Party Viewpoints

VII

Acquisitions—Third-Party Viewpoints

A

Current and Future Acquisition Trends

Respondents to the third-party surveys included four leading information services investment bankers and an institutional analyst who provides analysis on information services companies to institutional portfolio managers.

Four of the respondents specifically perceived an acceleration in merger and acquisition activity in the information services industry. The acceleration is seen to be related to a trend toward industry consolidation. All respondents projected an acceleration in the acquisition process over the next five years.

Other observations included:

- There is an increasing presence of foreign buyers in the information services market, related to the perceived need for global competitive capabilities.
- There is marked acceleration in acquisition activity by large companies that are outside the information services industry and are beginning to view information services as a major industry.
- Acquisitions are oftentimes now viewed as safer than building internally a major product or services area.
- The broad array of product and services alternatives now available in the information services industry necessitates major companies' looking to smaller companies for implementing a total solution product capability.
- Companies seeking critical mass are a principal driving force behind the consolidation trend.

Specific comments on projected changes in the nature of the acquisition activity in the information services industry over the next five years included:

- "We will have more activity from outside the U.S. The markets are becoming more global."
- "The desire by many to provide services rather than product should cause acquisition interest, along with a greatly increased number of applications."

There was less of a consensus on the impact of merger and acquisition activity on the growth and success of the information services industry, as indicated in the following comments:

- "The big will do better, and the small will have a tougher time."
- "As the industry becomes dominated by a few big establishments, as opposed to a myriad of smaller players...(the tendency is) is to heighten the success perception, but lower growth."
- "(There will be) more standards, lower-cost service, and new potential applications; industry growth will accelerate."
- "The prospect of being bought out will entice new people to enter the field, but it will become more difficult for the many companies that are not acquired."

There was near consensus on the outlook for the industry structure in 1994: an industry dominated by large companies that offer multiple products and services, and accelerated product development cycles that will make the competitive environment much tougher.

B

Dominant Valuation Methodologies Currently Used

The various investment bankers surveyed by INPUT for this study deal with a variety of companies by specific information services industry sector, company size, and type of ownership structure. The maturity of the industry, however, appeared to be a principal factor impacting the dominant valuation methodologies. Specific comments included:

- "With the smaller size and relative immaturity of many smaller companies in the information services industry, book value is usually not a material enough factor to be used as a significant valuation benchmark."
- "A multiple of trailing revenues: this is due to the high growth and high cost of building an information services company. As they reach a critical mass, they can become highly profitable."

- "Earnings multiples and related dilutive effects, and to a lesser extent, estimated cost to replicate the market position and technology"
- "The preponderance of the valuation must be placed on potential revenue and earnings related to the maturity phase of much of the industry."

C

Legal/Regulatory Constraints on Merger and Acquisition Activity

Most of the respondents did not identify particular legal/regulatory constraints on mergers and acquisitions activity in the information services markets.

The one respondent that indicated this was a particular issue indicated that the FTC will have to become increasingly concerned with the competitive aspects of mergers: "The regulators will be more concerned about emerging oligopolies that will make mergers subject to stricter review."

D

Current and Future Information Services Acquisition Trends by Principal Delivery Mode

Nearly all the respondents viewed the professional services/systems integration industry and network information services sectors as currently exhibiting strong acquisition activity and interest.

Microapplication software and processing services companies were also mentioned.

Specific industry sectors mentioned that will demonstrate the highest level of acquisition activity/interest over the next five years were network information services and systems integration.

VIII

Strategic Partnering

VIII

Strategic Partnering

The factors affecting the rate of change in the information services industry is not only stimulating mergers and acquisitions activity but is also contributing to unprecedented numbers of strategic partnering/ alliance programs.

The concept of strategic partnerships/alliances involves separate, legal entities (and in some cases even competitors) assigning roles within their overall strategic plans to other vendors' products or services in an attempt to include areas of business that are outside their current capabilities and resources.

Strategic partnering represents a fairly new concept of cooperation among companies. Although it has recently found particular favor in the information services industry, legal and structural precedents for strategic partnering have come from other major industries in recent years, such as in the automobile, steel, petrochemical, and pharmaceutical industries. Much of the initial strategic partnering in these other industries has been with foreign companies, particularly the Japanese, who have long been practitioners of strategic partnering, which is related in part to the policies of their governments.

A

Need for Strategic Partnering

The strong demand for various information services products and the high levels of relative profitability in the industry, particularly since the early 1980s, helped fund the development of many new technologies along with a large number of startup organizations.

- The high growth levels achieved by the information services/electronic sectors over the past several years also attracted large sums of venture capital funding. In many industry subsectors, there was funding of companies in what appeared to be major market opportunities surrounding new technologies.

- The high funding levels led to a number of new technology and product introductions and contributed to increasingly rapid product obsolescence.

- The product life cycles of many information products and services have been considerably reduced over the past several years—whole markets are now restructured within very short timeframes (as little as one year for microcomputer software). Over the same time, product development has not shown a parallel reduction, due in large part to the increasing complexity of new products and services. This translates into higher front-end product development costs combined with a shorter product cost recovery period.

- The combined effect has led to much more substantial capital and technological requirements for individual companies to remain product competitive in terms of their R&D and marketing capabilities.

- One defense against this shortening of service/product life cycles in recent years has been the search for specialized market niches and the narrower (and relatively smaller) vertical markets (as opposed to cross-industry segments), which haven't yet attracted the magnitude of competition.

In addition, particularly since the 1984-1985 time period, the PC markets whose high growth rates had stimulated much of the demand for new software products in the early 1980s, began to show signs of maturing.

- The maturing of these markets, as measured by a slowing in annual growth rates, has been particularly evidenced in the financial market's valuations of the information services sector. Since 1985, P/E multiples of the information services and electronics groups which had been in the range of 20-30 have been trending downward to the 10-20 average multiple range.

- This has not only made equity funding of information services companies considerably more expensive but has also led to a much reduced enthusiasm for initial public offerings (IPO) of young information services companies, with negative consequences for many of their venture capital backers.

In addition, many of the mainframe and minicomputer systems vendors, which have historically achieved high levels of profitability from their hardware product lines, are confronting the impact of the relative price/performance benefits of the 32-bit microprocessor-based workstation and desktop computer products. In addition, the computer mainframe market has been maturing for a number of years has been recently growing at compounded annual growth rates of 3-5%, in line with other "mature" industrial sectors.

The combination of all of the above factors appears to have changed competitive positioning, particularly among the larger computer systems and software and services vendors towards enhanced services, greater product breadth, and the use of alternative distribution channels that exert the marketing strengths of a strong financial structure and large customer base.

- This is also referred to as "total solutions" selling or one-stop shopping and maintenance capability.

- The customer (user) applications requirements are also becoming much more sophisticated, oftentimes requiring a customized, systems integration solution. This also oftentimes means that the products of a single vendor cannot meet the requirements of the entire solution.

- In addition, an increasing level of customer solutions are requiring multivendor connectivity, which can require strengths in application development tools, relational data base management systems, and communications software bridges and routers to provide an integrated solution. Many of such products are supplied by specialized "niche" companies.

The benefits of economies of scale also accrue to the larger players, which can make pricing a major competitive factor.

In addition, the increasing support of standards and open systems is also leading to a greater need to provide value-added services to achieve higher levels of profitability. At the same time, the larger companies are oftentimes in a better relative position to establish their products as the industry standards.

These factors can create significant competitive disadvantages for many of the midsized and smaller information services companies.

However, the smaller companies, in particular, have historically shown ability to come up with the newer, more innovative products, which probably relates to their more flexible management structures.

- As such, many of the smaller companies are seeking ways to leverage their research and development capabilities by creating alliances with the established marketers.

- This dovetails with the need of the larger computer systems, software and services vendors to obtain additional products and technologies to provide a "total production solution."

It is in the pairing of larger players with the smaller, innovative companies where much of the strategic alliances activity is occurring. Particularly in maturing markets, reflecting more intense competition and declining gross profit margins, the ability to leverage product capability through a strong marketing program becomes a key competitive factor. Also, the ability to support value-added services in a bundled product offering is a way of maximizing the efficiencies of the marketing effort, as the move towards standards in hardware, in particular, leads to commodity pricing levels in such products areas.

However, it is a midsized company, which lacks a strong strategic advantage, that will likely be best served by a merger or acquisition to obtain the benefits of improved capital, product, and/or marketing resources, such as the Morino Associates, Inc. and Duquesne Systems, Inc. merger of "equals".

Some of the key factors fueling the strategic partnering/alliance trend include:

- Increasing complexity of users' systems/applications
- The high growth rate in systems integration, a market requiring multiple capabilities
- Accelerating pace of product obsolescence, making buy versus build decisions financially more attractive, particularly in certain niche markets

B

Advantages and Disadvantages of Strategic Partnering

The adoption of strategic partnering as an integral part of a vendor's market thrust has a number of paired advantages and disadvantages. Whether this approach will be a positive or negative step for a given vendor will be determined in large part by management strength. Strategic partnering is not a prop for weak management or a panacea for internal structural weaknesses. Strongly managed companies, on the other hand, will thrive on this approach because it expands their technological market and product and managerial horizons while increasing the pace of growth and access to new markets.

The upshot of this is that a given vendor will emerge from strategic partnering either strengthened and invigorated or in disarray: learning about your strengths is productive—learning about your weaknesses in excruciating detail can be destructive and debilitating.

The main difference lies in the fluid, dynamic nature of strategic partnering:

- There are no established guidelines on how to handle the intercompany relationship.

- Each relationship is unique, and the parameters governing it are constantly changing.

- Strategic partnering relies on companies doing an excellent job at something most companies have difficulty with: strategic planning.

- Strategic partnering has such a profound effect on a company that it may alter the organizational structure on an ongoing basis, as the partnership develops.

- Industry studies indicate a very low success rate for strategic partnering in the information services in general as well as other industry sectors, particularly over the longer-term. However, since "cooperation" represents a relatively new approach to conducting business in the U.S., in particular, future partners can learn from the mistakes of the earlier pioneers.

- Strategic partnering has proven to be much more successful among Japanese companies, and as such the Japanese model for partnering/collaboration is now being studied in the U.S. (see *Harvard Business Review*, Jan.-Feb., 1989) for guidelines on how to maximize the advantages of partnerships while guarding against negatives, such as the unwanted transfer of competitive advantages to the partner.

Some of the factors to consider for achieving success in strategic partnering include the following.

For the smaller partner:

- Avoid an overdependence on the partner that could substantially weaken the smaller partner if the alliance is cancelled.
  - Don't look to the bigger partner as "the" solution for a particular problem, or don't let the bigger partner become the largest customer.
  - Don't let the bigger partner have exclusive marketing rights to the product.

- Encourage a substantial equity participation to discourage sudden dissolutions of partnerships and to increase level of interest in the success of the alliance.

For partners of all sizes:

- View the alliance from the standpoint of a longer-term strategic goals, including specific benefits to be achieved from the partnership.

- Avoid being a loser in a strategic partnership by closely monitoring precisely what information is exchanged between the companies.

- Evaluate on a regular basis the benefits/disadvantages of the partnership including the amount of resources being devoted/to the relationship.

- View the partnership as a learning experience covering not only the products involved in the exchange but also other facets of the other company's operations.

Clearly, all this requires great self-confidence, managerial strength, and flexibility, which are not easily found. But the greater degree of sharing, the greater the potential for benefits to both parties. The final success of the strategic partnering chosen, however, lies in the accuracy of the evaluation of the marketplace and the strategic plan followed.

Some of the key advantages and disadvantages of strategic partnering are summarized below:

Advantages

Provides an evaluation period for a longer-term company and product fit
Combines complementary strengths
Minimizes risk of a more permanent relationship
Expands marketing/product capabilities
Facilitates bidding on complicated deals
Accelerates time-to-market of individual products
Substitute for venture capital financing

Disadvantages

Today's partner can become tomorrow's competitor
Some loss of control for individual companies
Relatively high failure rate of strategic alliances
Can accentuate inherent management weaknesses

C

Strategic Partnering: Options at All Levels

Strategic partnering is not an "all or nothing" proposition: it can be used as a limited support option at every level of the corporation, e.g., capital requirements, marketing, sales, service, and R&D, as depicted below. (See Exhibit VIII-1.)

EXHIBIT VIII-1

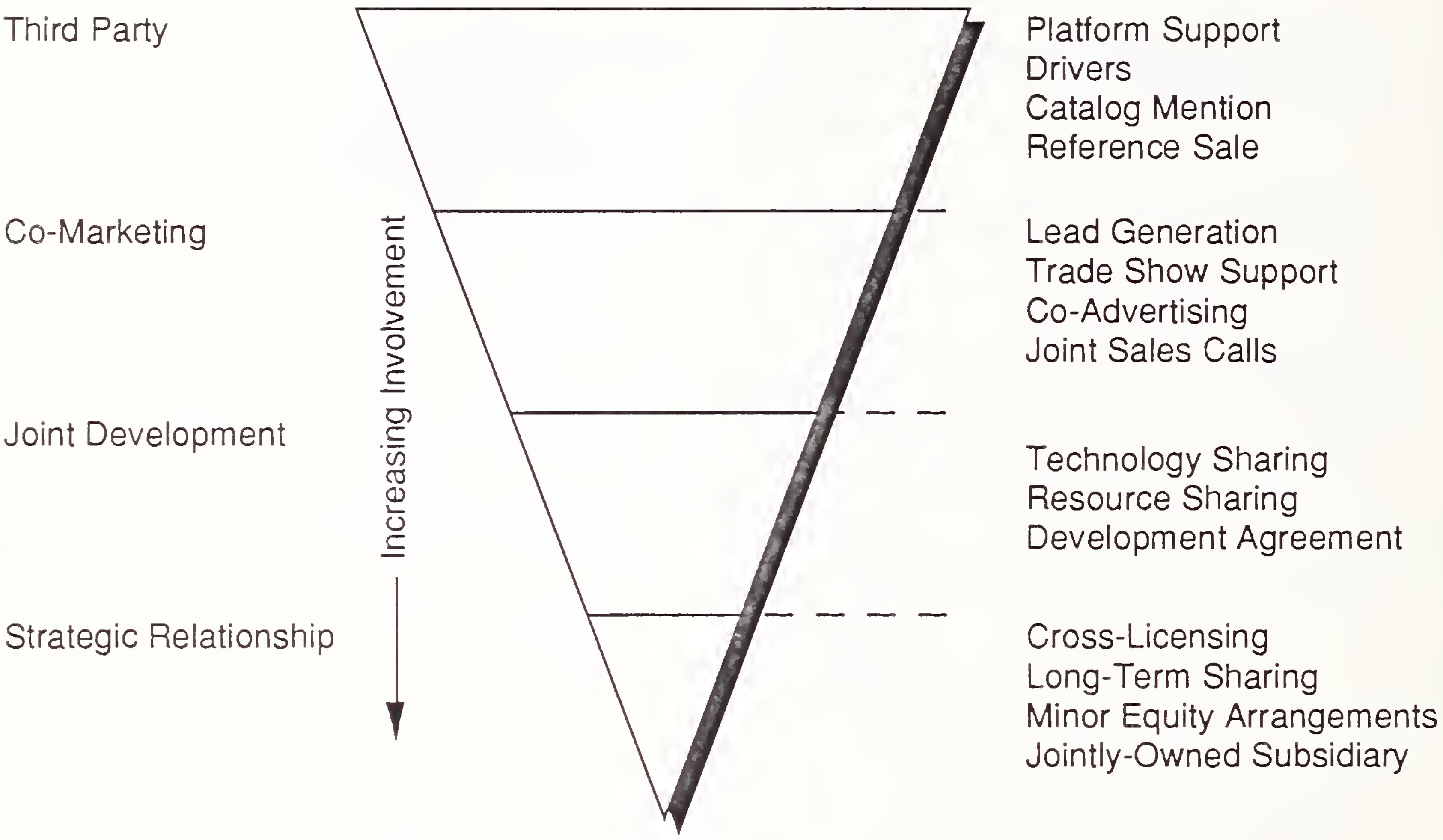
STRATEGIC PARTNERING WITH THE OUTSIDE WORLD

Finance	Venture capital, "big brother" sponsor
Marketing	Packaging, pricing, positioning
Sales	Distribution channels, manpower, wholesale/retail outlets
Service	Post sales support
R&D	Partnerships

There are several types of alliance mechanisms than can be used to achieve these various support options. (See Exhibit VIII-2.) The partnering relationships explained below are in the order of decreasing magnitude (i.e. the number of such arrangements) and increasing resource commitment or expenditure.

EXHIBIT VIII-2

ALLIANCE MECHANISMS


Third Party
Co-Marketing
Joint Development
Strategic Relationship
Increasing Involvement
Platform Support
Drivers
Catalog Mention
Reference Sale
Lead Generation
Trade Show Support
Co-Advertising
Joint Sales Calls
Technology Sharing
Resource Sharing
Development Agreement
Cross-Licensing
Long-Term Sharing
Minor Equity Arrangements
Jointly-Owned Subsidiary

1. Third Party

In this relationship, the software vendor develops the application to work on a specific hardware platform or with a specific software module. This may entail the need of a small amount of software to customize the application to the particular environment. When this occurs, the two parties place the relationship in a catalog of such relationships to be used as a way to express the support.

This is by far the most popular alliance mechanism today, with each of the larger computer systems vendors, in particular, having developed hundreds of such relationships.

This coincides with the rapidly expanding activity of the hardware vendors in the application software area and need for immediate product. In addition, an internal software development effort requires the sharing of scare development resources with the company's traditional hardware business.

The various leading computer systems vendors are utilizing a number of different approaches to develop application software products:

- Companies such as Digital Equipment appear to be placing a major emphasis on third parties for application software solutions, with DEC providing the application development tools to facilitate the integration of the application software with its network architecture and systems software products. This is particularly evidenced in DEC's systems integration approach to the manufacturing market sectors.

- In a recent article in *Computer Systems News* (June 12, 1989), by Marianne Kolbasuk McGee, a DEC spokesman indicated that since 1979, sales generated through DEC's third-party channels have grown eight times faster than the company's sales as a whole. Strategic partnering type activity between DEC and its authorized resellers, in particular, includes joint marketing activities and cooperative advertising.

- IBM, through its new Applications Systems Division, appears to be using a variety of approaches, including significant internal resources devoted to application product development, third-party alliances (particularly evident in the AS/400 product launch), and more recently, small equity participation—5-15% in companies representing emerging technologies and/or niche markets. The small equity positions, compared to an earlier policy of taking a majority investment positions in companies, is a much lower risk strategy, but still gives IBM some control over the development process.

- IBM's internal development efforts in application software product, particularly in the vertical market sectors, which represent a more growth potential than many of the more mature cross-industry markets, appears to be concentrated on certain sectors such as financial services, distribution, and manufacturing.

- Value-added reseller (VAR) agreements between independent software developers and computer hardware vendors, which have become an increasingly popular alternative distribution channel for computer systems vendors, also are a part of the third-party partnership/alliance category. However, VAR relationships also increasingly overlap with the co-marketing alliance category as computer systems begin to put more of their own marketing resources behind particular products. This appears to the current direction in many VAR programs as computer systems vendors compete for the limited number of higher-quality VARs.

2. Co-Marketing

This relationship strengthens the third-party relationship by the amount of additional resource that each company expends to proactively help market each other's products.

The type of activities used in this mode of partnering are:

- Lead generation
- Trade show support
- Joint sales calls

This type of relationship can also be characterized as more of a software publisher's role for the computer systems vendors.

Computer systems companies more recently have been very aggressively pursuing cooperative marketing partnerships. IBM and Hewlett-Packard have probably been the most active; but DEC, Prime, and Unisys also appear to be showing increasing interest. DEC has been pursuing third-party cooperative software marketing alliances particularly to build its commercial systems integration capabilities.

3. Joint Development

Joint development is used as a mechanism to create a capability using both participants' technology. This means that dollars and resources are budgeted, and the budget to be created is mutually advantageous and probably available more quickly than if it were attempted by either party on a separate basis.

Tandem Computer's recent alliances activity, particularly its T.I.M.E. (systems integration) manufacturing joint venture with MSA, Boeing, and EDS, is an example of such a relationship.

The joint development relationship frequently is part of a longer term relationship, which INPUT defines as a strategic relationship.

4. Strategic Relationships, Joint Ventures

There are occasions when companies agree that it is in their best interests to work together over a long period of time, generally years. Resources are expended and the results of the efforts are shared and agreed upon up front.

A jointly-owned subsidiary or equity sharing arrangement using cross licensing is the technique that is generally employed.

Hewlett-Packard has been particularly active over the past year in developing such relationships. This includes, for example, its 5% equity stake in 3Com in addition to a longer-term joint research agreement.

IBM and Tandem have also been significantly increasing the number of equity investments in smaller companies including: IBM's recent equity investments in Metaphor Computer Systems (object-oriented technology), Interact (software programming tools), Polygen (simulation and research documentation software), and Interactive Images, Inc. (graphics applications development tools); and a significant equity investment in the startup company, Transarc Corp., which will develop UNIX-based distributed commuting and transaction processing software based on research conducted at Carnegie-Mellon University's Information Technology Center.

IBM's very recent announcement of their intent to take a 5% investment interest in Management Science America, a leading vendor of manufacturing and financial application software products, and a 15% stake in Computer Task Group, Inc., a significant player in the professional services/systems integration markets, appears to represent a rather significant shift in IBM's alliance program.

This could be the beginning of an alliance trend among large complementary hardware and information services companies, rather than the current large company, smaller alliance activity syndrome. A principal driving force could be the issue of account control.

In particular, IBM's investment in a leading professional services vendor and Xerox Corporation's recent financial banking of a systems integration startup, could signal further increases in the rate of acquisition activity in this already hot acquisition market sector.

Tandem recently invested in Netlink, Inc., a developer of SNA interconnect products.

Venture capital financing for the startup company can also be considered as a type of strategic partnering.

Still another type of strategic alliance activity is that between the information service vendor and a third-party maintenance provider, particularly one that can provide cheaper maintenance rates than the original product manufacturer. Such relationships can help the information services vendor establish tighter account control over the maintenance and support revenues coming from its user base as well provide for the continuing of relationships that help foster add-on product sales.

One of the most significant trends in the information services industry, which is promoting the need for strategic alliances, is the strong demand developing for integrated, networked solutions. The ability to provide multivendor connectivity and a broad array of product offerings, and the necessity to customize many such project offerings, are requiring alliances among software, hardware, and systems integration vendors. This is particularly evidenced in federal government contracts, where the scale of activity is so great that a team of suppliers is required—the project management and financial risk is absorbed by the large systems integration vendors, such as EDS, Computer Sciences, AT&T, the Big Eight Accounting firms, and the RBOCs, which have the customization tools, experience, and capital structure to serve as the prime contractor.

Strategic partnerships or joint ventures can also can be a much less risky approach for a foreign company to gain access to U.S. distribution channels than either through an acquisition or as a startup activity. The Japanese, for example, have recently been initiating relationships with U.S. professional services/systems integration companies as an entry to systems integration activity in the U.S. markets.

In all of these areas of opportunity, the key to a successful relationship is finding a partner that can perceive the benefits the alliance will bring, while preserving the independence of each. This entails a substantial element of risk and mutual trust, not only in the abilities of the respective partners but also in the ultimate goals that each is pursuing. An arm's length relationship is best, where possible, since it preserves the identity, freedom of choice, and image of the partners. However, many will find it necessary to conclude a closer agreement involving mutual monitored shareholdings representing commitment and interest in the growth and profitability of the partner.

D

Prominent Examples of Strategic Partnering

In addition to the alliances of the computer systems vendors with independent application development software products companies alluded to above and the systems integration alliances of the major service providers, some of the other major alliance activity in the information services area over the past year is included below.

In recent years the proliferation of local-area network (LAN) companies built around specific "proprietary" network protocols is now leading to increasing alliance activity, as standards in networking protocols are developing. A particular benefit of such alliance activity is the ability of the team of players to provide connectivity between the various proprietary networks and a transition strategy to the emerging OSI seven-layer standard.

In addition, there have been a significant number of mergers and acquisitions among LAN communications companies and computer systems companies as well as other LAN communications software and systems companies.

Particularly for multivendor environments, such alliances make the individual LAN companies competitive against the single source suppliers.

- An recent example of such alliance activity is that among Network Systems Corp., Excelan, and Wellfleet Communications, Inc. Under this partnership, the products will be sold and served by Network Systems' worldwide sales and service organization. The partnership will allow networking and IS mangers to deal with a single vendor for products to connect different kinds of networks involving multiple types of computers.

  The Excelan and Wellfleet products complement Network Systems' primary product line, HYPERchannel-DX, which connects large-scale computers through high performance networks. Excelan's products are primarily used to create and manage local-area networks among minicomputers, workstations, and personal computers. The Wellfleet products are routers that connect local-area networks to each other and to wide-area networks.

  The objectives of the partnership are to meet customer needs for connecting multiple networks into a wide-area network and to do it with industry standards.

  The three companies also share a number of common marketing and product-development objectives.

  Novell has developed a number of alliances with smaller firms that are capable of supplying different pieces of its IBM mainframe communications strategy.

- Apple Computer recently took a stake in the networking start-up company, Photonics Corp., which is developing an infrared-based communications technology that will be initially provided on the Macintosh. Apple has also made an equity investment in Touch Communications Corp., an Open Systems Interconnection software and systems company, in addition to acquiring the network communications companies, Orion Network Systems, which provides IBM SNA connectivity software, and Network Innovations, with product that links Macintoshes to DEC VAXes.

The CASE market, which is characterized primarily by a number of smaller companies providing either front end or back-end (application generator) products, has experienced a great deal of alliance activity within the last year. Even the larger computer systems companies, such as IBM and Digital Equipment, appear to be relying on strategic partners, for many of their CASE solutions.

Such partnering helps provide total CASE solutions, where the large CASE market potential exists, while helping to minimize the development costs of such companies, many of which are privately financed. In addition, industry sources suggest there are well over 100 companies in the CASE market—currently estimated at approximately $200 million in size—which suggests there will be a competitive shakeout in the market over the next few years. Alliances, in addition to mergers and acquisitions, could help determine the surviving entities by helping establish a CASE standard.

- IBM has created a joint development/licensing agreement with Transform Logic, a developer of one CASE application generator product for the IBM mainframe environment.

- Transform Logic has also created a joint marketing agreement with Visual Software, Inc., a developer of CASE front-end design tools, which also has a business relationship with IBM as an IMAP (Industry Marketing Assistance Partner).

- DEC has also established a number of CASE alliances, including a recent cooperative marketing program with Interactive Development Environments for its Software through Pictures CASE product.

  DEC also recently signed a Cooperative Marketing Program agreement with Cullinet Software, Inc. The two companies will jointly market Enterprise:Builder, Enterprise:Generator, and Enterprise:Expert. A particular benefit to DEC of such product capability is that it allows for the development of applications for a multivendor environment.

  In addition, Cullinet's Enterprise:Expert combined with DEC's VAX platform and voice response systems represents a new technology capable of opening up new markets.

- CGI, Inc. and EDS recently signed an agreement for EDS to use CGI integrated CASE technology in its systems integration programs.

- Cadre Technologies, which sells the Cadre line of CASE tools, established a relationship with Relational Technology to integrate RT's RDBMS and SQL tools with the Cadre product line. The first phase of the product development program will involve the integration of Cadre's information modeling tool with the Ingres data dictionary.

Manufacturing information services vendors have been particularly active in developing alliances to enhance their ability to address the CIM (computer-integrated manufacturing) market, which represents one of the larger as well as potentially one of the strong growth vertical markets.

- Price Waterhouse and Qronos Technology recently formed a strategic alliance to make consulting and software services available to process manufacturers.
- Qronos Technology also has a joint development relationship with IBM as well as a partnership for Fisher Controls International.
- Cincom Systems has made close to 40 alliances over the past few years, particularly in CIM alliance program. These range from marketing agreements to working with hardware manufacturers on product-development projects, which are facilitated by the company's emphasis on standard interfaces.
- Unisys, Prime, H-P, Data General, IBM, Tandem, and Stratus Computers have established numerous third-party alliances with software companies that have developed manufacturing applications for their hardware.

A particularly intriguing approach to alliance activity for building its product offering is that exhibited by Santa Cruz Operations, Inc., a leading supplier of programming tools and applications for the UNIX (XENIX) personal computer environment.

- Microsoft and SCO have a technology exchange agreement, and Microsoft recently established a minority investment position in SCO.
- SCO's new Open Desktop (TM) integrated office product offering is based on SCO's development of file/data interfaces to a number of leading PC applications products. Products are licensed from the various vendors and sold as an integrated package with a graphics-based common user interface. To provide the Open Desktop product, SCO has created alliances with a number of independent software companies. SCO recently introduced a programmers' development kit that allows alliance members to integrate the Open Desktop functionality, which includes an integrated graphical interface and open SQL-based data base and networking capabilities for connectivity to various hardware platforms.

The other well-known office products alliance program is IBM's SAA-based OfficeVision program, which provides for the integrated access of applications across various hardware platforms, with a graphics-based common user and programming interfaces.

As the DBMS market matures, it is also standardizing around the SQL interface, which also can portend more commodity pricing for the product.

Several alliances have developed to bundle RDBMS products with other systems software products.

- Ashton-Tate, Microsoft, and Sybase have a co-development and marketing agreement for the SQL Server product.
- Verity, an expert-systems based text management/retrieval product company has established a number of joint marketing agreements with leading RDBMS vendors, such as Oracle, Relational Technology, and Informix.
- Ashton-Tate has an alliance with DEC to create a dBASE front-end to the VAX/VM Rdb product. Ashton-Tate will develop, and DEC will market and support, versions of Ashton-Tate's dBASE software for the DEC computing environment.

  The marketing of dBASE is part of DEC's strategy to offer industry-leading applications across its desktop platforms and its entire VAX family of systems integrated with VAX/ Rdb/VMS.
- Sybase and Unify, two leading suppliers of RDBMS products recently announced a joint marketing agreement to offer customers a combination of Unify's ACCELL 4GL technology and the SYBASE SQL Server. Under the partnership, Unify will interface ACCELL to the SQL Server. This agreement is unique because it represents an accord between competing RDBMS vendors.
- Banyan Systems recently announced it will jointly sell a data base management and network operating system with Oracle. The Oracle Server product for Vines consists of Banyan's Vines organizational network operating system and Oracle's Version 6 relational DBMS.

A number of alliances have been established between expert systems/AI companies with computer systems and professional services/systems integration companies, as well as among expert systems vendors, as a way for the larger partner to gain immediate access to a specialized technology.

- IBM has a joint development agreement with Intellicorp for Intellicorp to port its KEE expert systems application development products to the IBM mainframe environment.

- Bechtel Corp. has licensed Neuron Data's NEXPERT OBJECT expert systems development technology as part of its process control/systems integration product offering.

- IBM recently selected Natural Language, Inc.'s NLI DataTalker and NLI Connector natural language software, which enable business and professional people to access computer information using conversational English.

- Neuron Data and Teknowledge, Inc. have announced an agreement under which Teknowledge will provide application development service and training courses for NEXPERT OBJECT.

The larger computer systems vendors have established special arrangements with the larger independent software vendors to encourage their porting of software to the particular computer systems vendors' hardware.

- DEC has signed a deal with Computer Associates International to jointly develop and market versions of several CA products for the DEC VAX/VMS environment.

  DEC's All-in-One and Rdb data base management system product will also be integrated with the CA product.

  The alliance helps DEC penetrate the larger data center accounts and puts CA in a strong competitive position in the mid-range market.

  DEC also has signed a relationship with Relational Technology to bundle the latter's RDBM product into the VAX/VMS product offering.

- Prime Computer has an arrangement with SAS Institute whereby the two will jointly market each other's products. This is also a reinforcement of an earlier Prime/SAS Institute agreement.

- Oracle has signed a joint marketing agreement with Sequent Computer Systems for Oracle's new financials accounting application packages.

  Under the terms of the agreement, Sequent and Oracle will joint market the Oracle Financials packages.

- Oracle also announced an agreement with H-P to provide the Oracle Financials applications packages on the HP 9000 800 Series computers.

Oracle and H-P will also develop a marketing and sales program for Oracle Financials that will include marketing materials and cooperative participation at key trade shows. Sales activities will include training of both sales forces, lead generation, direct mail, and seminar campaigns.

- Informix Software and Pyramid have signed a strategic marketing agreement enabling Pyramid to resell Informix relational data base management and office automation software on its line of RISC-based hardware platforms.

- Apollo Computer and Informix Software recently announced a strategic marketing agreement, in which Apollo will resell a broad range of Informix products, including Wingz (TM), a high-performance graphic spreadsheet that had previously been available only on Apple Macintosh (R) systems. In addition, Wingz and all Informix DBMS products will be available on Apollo's complete line of UNIX-based personal workstations and personal supercomputers. Informix indicated that its goal was to be an industry leader with data base and office automation software that works in as an integrated solution across multiple operating environments.

  An Apollo spokesman indicated that they want to address the expanding software application needs of their traditional engineering customer base.

  Informix will also be using Apollo's Open Dialogue (TM), a portable and extensive user interface management system, to provide the OSF/Motif (TM) specifications as Wingz's user interface.

- Unisys has a cooperative agreement with Advanced Information Management that combines Unisys' expertise and AIM's methodologies and skills in a series of new Contingency Management Services marketed by Unisys.

Certain professional services and systems integration companies have been particularly active recently in pursuing industry alliances. Targeted groups include:

- CASE and expert systems companies

- Software companies addressing vertical markets

- Mainframe-based cross-industry applications such as financials and human resources packages

- PC-based financial and accounting products companies

- Integrated office products companies

Professional services companies that have been particularly active over the past two years in targeting other information services companies as strategic partners include:

- Arthur Andersen & Co. (Computer Associates International, Management Science America, McCormack & Dodge, Micro Associates, etc.)
- Computer Task Group (Aion Corp.—expert systems/CASE; Relational Technologies; Transform Logic—CASE)
- Deloitte Haskins & Sells (Computer Associates; Holland Systems—strategic planning tools; Lockwood Greene—engineering and architectural services, etc.)
- Peat Marwick Main & Co. (Computer Associates, Management Science America, and McCormack & Dodge)
- Price Waterhouse (Index Technology—CASE; Management Science America; McCormack & Dodge; and Pansophic)
- SHL Systemhouse (Applied Data Research, Cognos, Oracle, and Relational Technologies)
- Recent series of merger talks among the Big Eight (Deloitte, Haskins & Sells, Touche Ross and Co., Ernst and Whinney, Arthur Young and Co., Arthur Andersen, and Price Waterhouse)

E

Sharing: An Integral Part of the Information Services Strategy for the 1990s

Strategic partnering activity is accelerating in the information services industry. Particularly active sectors include communications systems and software companies with computer systems, as well as with other communications products companies; data base systems management companies with other systems software companies; CASE vendors with other software application development tool providers; computer software and computer systems (hardware) companies; professional services/systems integration companies with application software specialists and application development tool companies; and telecommunications systems suppliers with independent software developers.

INPUT believes the trend will continue to accelerate into the 1990s, principally due to the following factors:

- The pace of technological change is accelerating related to such factors as: the rapid pace of new hardware product introductions; increasing demand for end-user products; the growth in multivendor networking requirements; increasing complexity of product requirements for the IS center; and increasing pressures of global competition.

  This is leading to the shortening of product life cycles at the same time that the cost for software product development is accelerating.

  As a result, many information services vendors are looking for ways to "buy" rather than "build" product capability to leverage other internal product and services strengths.

- Of key importance in establishing a strategic alliance is to link product and service offerings on a complementary basis without cannibalizing individual company market opportunities or profit margins. The partners and their alliance should exhibit the following qualities:

  - Longer-term strategic goals on the part of both partners must be clearly established.
  - A regular monitoring of the benefits of the partnership must be established to prevent one partner from gaining the benefits of the alliance at the expense of the other.
  - Each partner should have particular competitive strengths to make a balanced relationship.
  - Relationships on products should not be exclusive to avoid major dislocations if the alliance is suddenly cancelled.

- Strategic partnering should be viewed not only as a way of reducing costs or avoiding risks, but also has a way of gaining new knowledge and insights into the markets addressed—the approach should be proactive rather than reactive.

- A key emerging marketing strategy in the information services industry that is also fostering alliances is that of total solutions selling, including both hardware and software.

  However, many companies do not want to support both hardware and software development. This is leading to complementary marketing opportunities for the predominantly hardware and software vendors.

  In addition, INPUT projects that the fastest growing information services market over the next five years will be systems integration.

Systems integration product and service contract requirements can vary considerably, and the ability of the prime contractor to demonstrate product breadth will be increasingly important to winning contracts. Strategic alliances will increasingly become a requirement for the most efficient implementation of a systems integration solution.

- In addition, the trend to standards will both facilitate the integration of products from various vendors and necessitate more alliances. Standards foster commodity pricing levels that create greater dependence on financing support services to achieve value-added pricing.

Strategic partnering, however, is not for everybody. It is essential that companies approaching strategic partnering have a very strong management that knows where it is going. Without such strength, it is wiser to avoid strategic partnering.

However, management strength is not enough: a well-defined strength in technology, resources, or products associated with a detailed strategic plan is mandatory prior to seeking a partner—if you have nothing to share, you are not a good partner.

The strains on management that will be added through the use of strategic partnering are enormous. It is necessary to manage both the company itself, and the wider market envelop covered by the partnership. The success of the venture will depend on the willingness of the partners to share their strengths and to take care of their own weaknesses.

Another major difficulty of strategic partnering is that it is an ongoing, dynamic relationship, which requires constant monitoring and may affect the structure of each of the companies involved.

Nevertheless, it is important for companies of all sizes in the information services industry to thoroughly examine the merits of partnerships in addressing larger market opportunities. In particular, if competitors are using such vehicles to strengthen their marketing positions, it is important not to be the last to seek out compatible partners in order to be able to create matches with the stronger companies.

INPUT's viewpoints on the role of strategic partnering in the information services industry in the 1990s is summarized below:

Sharing: An Integral Part of the Information Services Strategy for the 1990s

Strategic partnering is not for everyone.

- Companies approaching strategic partnering should have strong management.
- The ongoing dynamic relationship of a partnership requires constant monitoring.
- A stronger partner can preempt the benefits of a strategic relationship.

The changing competitive environment is increasing the need for partnering.

- Global marketing increases individual company's marketing and capital requirements.
- International alliances can provide access to unique expertise not available locally.
- The future competitive environment will include large international firms, with a myriad of relationships with smaller customers, suppliers, and other partners.

IX

Implementing an Acquisition Strategy

IX

Implementing an Acquisition Strategy

A

Self-Analysis and Market Window Determination

The essential preliminary to any serious acquisition strategy is self-analysis, which includes an objective evaluation of the company's present strengths and weaknesses in:

- Management and management philosophy
- Products/services/technologies (range and quality)
- Customer base (type and quality), market position, market share, overall competitive position
- General financial condition (balance sheet, leverageable assets, available loan financing, etc.)
- In-house people skills (i.e., knowledge of specific markets and ability to adapt to others)
- Current problems, relating to all of the above—e.g., targeted markets (rate of growth of revenues, market share, customer base growth, penetration rates), product lines (market coverage, competitiveness, technology), etc.

Obtaining the necessary level of objectivity is sometimes difficult without outside consulting help, even if management believes that it fully understands the marketplace. The key is to isolate constraints in, for example, capacity (which may be production capacity-related, manpower capacity, related or management-capacity-related), time, or financial resources.

Another major consideration at this stage (and one which must be constantly updated during the acquisition phase until its impact is no longer likely to affect the outcome or success of an acquisition) is market window analysis. The greatest common denominator in failed/nonperforming acquisitions is the failure of the management of the acquirer to identify the timing constraints of the marketplace with respect to the acquisitions being considered.

An example of this is how quickly the value of microcomputer software companies rose and fell with disastrous bottom-line results for the companies that acquired them. Little consideration was given to whether the momentary success of microcomputer software companies could be sustained given the trends in the marketplace away from their traditional clientele.

This is another instance where an outside consultant can be of significant help—the consultant will be unaffected by the internal politics of the acquirer and more aware of the future trends of the marketplace as they relate to the targeted acquisition. Sadly, the number of companies that disregard the value of this window analysis seems to be rising rather than falling, and is not limited to outside investors (such as banks, financial institutions, industrial groups and other services-based companies that have accurately identified the information services industry as an area of high growth), but includes the information services vendors themselves, who should know the vagaries of the market.

A comprehensive analysis would include not only general market conditions (the economy per se, the strength of the main economic sectors served, technology changes, and competition in the information services market, etc.) but a detailed analysis of the short- and long-term trends of each of the above aspects as they apply to the targeted service sector.

B

Prospect Profile Definition

Once acquirers have established a clear picture of who they are, as well as of the nature of the targeted market and the window of opportunity that exists with respect to that market, a prospect profile is needed that encapsulates all of the critical aspects of the ideal target. The profile needs to be detailed, to allow homing in on, for example, five to ten prospects from a general list of 300 companies.

An example of a prospect profile is given in Exhibit IX-1. It defines the type of organization in parameters that are visible (i.e., freely available) as well as invisible (i.e., data that may not be available without cooperation from the target). The profile must address very practical issues, such as, "Is the company open to being purchased," which largely determine the approach that can be adopted with respect to management, the parent, and outside shareholders.

EXHIBIT IX-1a

SAMPLE PROSPECT PROFILE

Item	Example
Revenue Size	10-20 M to 20 maximum if accounts only 15-30 maximum if some/all of the hardware systems are retained Negligible nondata services (or at least problem-free)
Growth	Currently at 30% per annum Historically higher
Profit	Now, immaterial (if clear potential) Future, minimum after tax profit of 10%
Service Business	Not dependent on particular "key" individuals, not project-based Repeatable, average account of $10K/annum Compatible users (in sectors that we currently service or that are related) Location(s) . . . (specified)
Hardware	Compatible/same as ours if integration Standards based architecture—open systems Rented/short lease—not owned/long lease

EXHIBIT IX-1b

SAMPLE PROSPECT PROFILE

Item	Example
Management/Staff	No/few shareholders, not entrepreneurial If integrating, emphasis on strong middle management; if not, strong period
Products/Services	Mature/competitive Good market image, name brands Complementary, unless ours is weak
Ownership	Prefer large/majority owner Fewer than five small owners No/few/unimportant managers
Approach	No commitment on redundancies Stress good synergy with us Guarantees to customers Growth opportunities for management

The example shown is typical of a services vendor with an excess of $50 million in revenues. However, there are more and more instances of large companies that have little or no current involvement with the services market that are making significant acquisitions.

C

Searching and Screening

Most companies assign the task of search and screen to a task force under the direction the Corporate Development Officer, whose guidelines are prospect profiles similar to the one shown in Exhibit IX-1 (although rarely as detailed or complete).

Searching for targets that correspond to the ideal profile can now begin in an organized fashion. In practice this is rarely the case, with companies relaying on word of mouth, the industry grapevine, and other informal processes. The list of "possibles" is therefore frequently less complete than it should be before screening begins.

Screening is usually achieved by the task force and a preliminary "hit" list discussed and approved by management. Two levels of screening are really necessary: (1) preliminary and (2) final, once contact has been established with the target, which should be a total reevaluation of the target to verify all of the data gathered at that time.

Note that for the purpose of screening, the target revenue size should be modulated by any factors related to the assets being acquired as well as to the value of the net revenue volume expected to be retailed (which can be different from current revenue in some cases).

Disposing of nondata services activities is problematic in many cases, since the new owners do not have the necessary expertise to assess the real value of these "foreign" items. However, the need for disposal is just as acute for service vendors that have come to realize that the service acquisitions they accomplished three to four years ago no longer fit the current market strategy of the company.

A divestiture is almost always a losing proposition, since if the acquired company is making steady profits, the chances of being divested are low (even though the strategic misfit still applies). Managers can rarely bring themselves to reduce operating surpluses even if the money were better employed elsewhere. Where the acquisition is losing money or not performing adequately, however, steps are taken to rapidly cut the loss and dispose of the offending subsidiary...usually at a loss with respect to the price paid at the time of purchase.

Conversely, when purchasing a company, it is not always necessary that the target be currently making a profit. (Indeed it is usually preferable that the potential for profit be apparent only to the acquirer since this reduces the price.) The easiest acquisition to make is one where operating economies make the acquired business immediately profitable or, better still, where the acquired business makes current business profitable by pushing the combined business volume over the critical mass threshold.

The composition of the business being acquired is the key "invisible" item that needs to be carefully examined. Apart from a detailed analysis of the contracts (duration, pricing, riders, special terms and conditions, obligations, etc.), the stability of the base must be measured. Typically, this can be solved by having a formal survey done of the customer's intentions, disguised as a customer satisfaction survey to avoid unnecessary disturbance of the customer base.

D

Valuation and Negotiation

Valuation is a company-specific activity with few fixed guidelines. While a preliminary evaluation can take place before a formal approach and following generally accepted principles (net worth, assets, current and planned profitability, etc.), a proper evaluation cannot be completed without some cooperation from the seller. Beyond the usual evaluation criteria, one key factor must be borne in mind that affects the apparent value to the buyer; what, if anything, is the impact of the buyer on the forward potential of the target?

- Target performance, as they would continue alone (no purchase by anyone)
- Target performance, if purchased by a competitor (particularly if a competitor is interested in the target)
- Target performance, if purchased by the company with clearly stated areas of quantified synergy associated with any risk factors

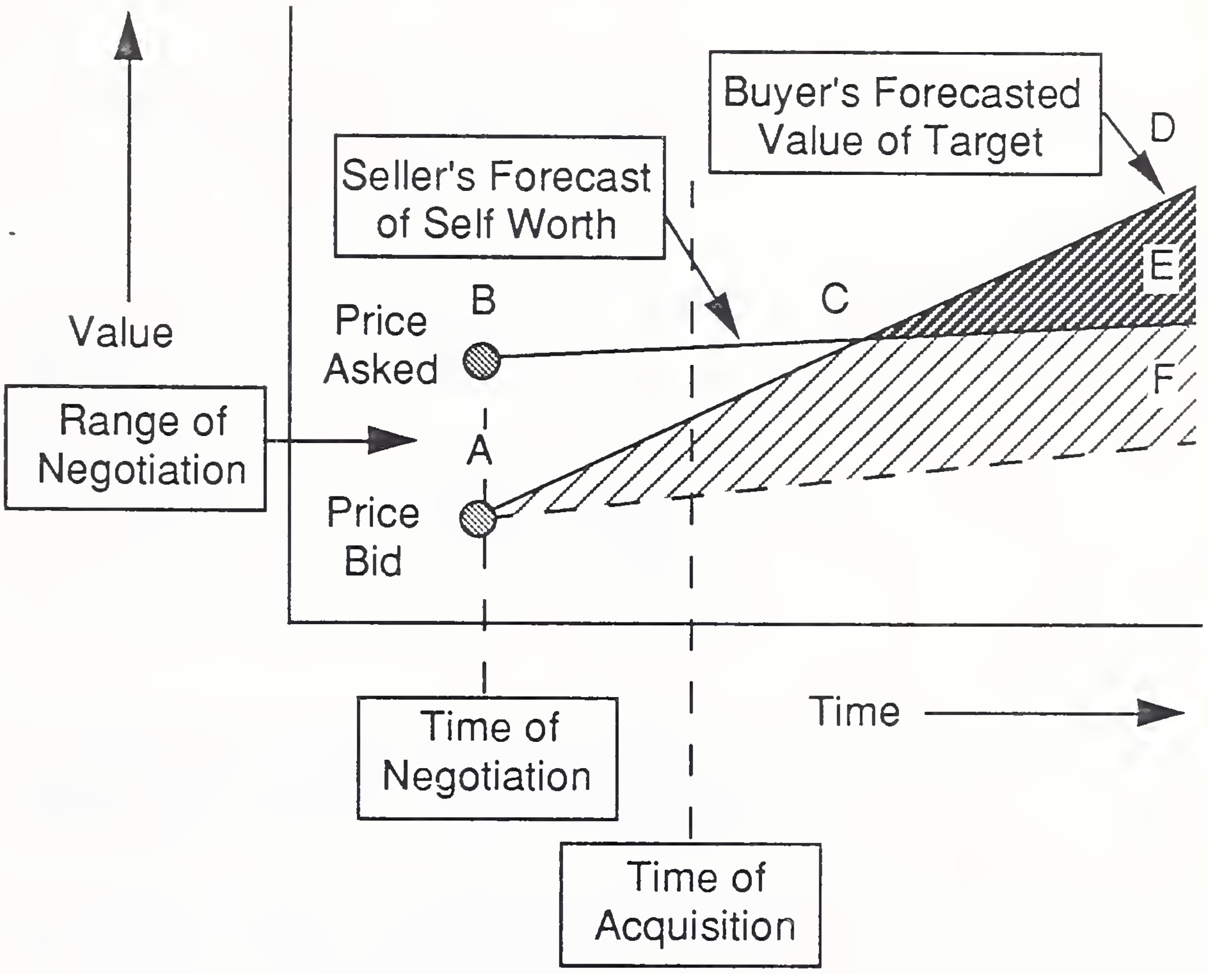
In some rare cases, an acquisition may have to be made on defensive grounds alone, e.g., to prevent a competitor from gaining access to a particular sector of the market or type of clientele that would have consequences beyond the immediate value of the acquisition itself.

The point of acquisition may be some time in the future, in which case the present value must be discounted. Exhibit IX-2 provides a notional image of this process. First it is assumed that the seller's price is higher than the buyer's initial offer (range of negotiation). It is also assumed that the forecasted value of the seller is different from that of the buyer by a measure equal to the expected synergy between the merged operations (which will be visible only to the buyer).

Where the buyer is able to convince the seller that his price is reasonable, the value of this synergy is represented by the shaded area between lines AD and AF. If the seller is unable to convince the buyer that his price is reasonable, then the synergistic value is reduced to the shaded area between lines CD and CE. The present value of the forecasted synergy is the difference in value between the correct minimum price at which the seller would sell and the maximum price the buyer would buy, i.e., the theoretical area of price negotiation.

EXHIBIT IX-2

ACQUISITION VALUATION


Value
Range of Negotiation
Seller's Forecast of Self Worth
Buyer's Forecasted Value of Target
Price Asked
Price Bid
A
B
C
D
E
F
Time of Negotiation
Time of Acquisition
Time

D,A,F-Theoretical value of synergy, if seller can be persuaded to reduce his price to buyer's valuation

D,C,E-Actual value of synergy, if seller cannot be persuaded to reduce his price

Acquisition valuation techniques commonly used include:

- Discounted cash flow (i.e., the present value, after applying an interest rate appropriate to cover inflation, risk, and interest of the net cash flows); this is theoretically the best valuation method.

- Price/earnings ratio (i.e., the multiplication of the expected earnings potential of the company by a value derived by dividing the current valuation of other companies in a similar field by their current earnings); this does not account for the synergistic potential of the target company.

- Acceptable payback period (i.e., the accumulation of the expected earnings during the acceptable payback period); this provides a guideline as to whether the price asked by the seller is within the bounds of reason but cannot be relied upon to determine the exact price.

- Assets, intangibles, and goodwill valuation (which frequently gives a very low valuation for information services companies unless the human assets and the goodwill are properly valued); this valuation provides a valuable perspective to the methods above.

Ideally, these factors will not be derived mechanically but will allow for such imponderables as lease commitments, supplier contracts, customer contract base (particularly any immediate changes), current target's parent subsidies, tax carry-forwards, imminent parent/subsidiary changes, imminent key staff changes, etc. Should the seller request it, nonfinancial aspects such as guarantees/warranties that are expected to be part of the contract or that the buyer believes he can obtain should also be factored into the valuation.

If, after all of these aspects have been considered, the price still seems to be out of reach, it is often instructive to evaluate the manpower and financial resources that would be required to create an equivalent business from scratch. This is often sufficient to put the purchase price of the target in a new light. On the other side of the equation, it is worthwhile noting that planned synergies are often never realized and that management dilution is frequently underestimated.

One worthwhile consideration of expected synergies is the fact that a parent that does not understand the technology of the subsidiary tends to downgrade the performance of the subsidiary. In the software industry there are few economies of scale that can be achieved, and there is a high risk of personality clashes between the acquirer and acquiree.

Negotiation, in practice, begins with the first approach and may continue past the contract completion phase. It is vital to establish a position of mutual trust from the beginning by being frank and direct. Without this trust, negotiations will be more protracted or can fail. The degree of trust that can be established can have a direct effect on the price paid for a given acquisition: it is frequently the case that a target acquisition that is the object of multiple bids will select the acquirer with which it feels most comfortable rather than the one that offers the highest price (when the price differential is not excessive).

It is very worthwhile to investigate the decision makers' concerns and rationale for seeking to be acquired (or, if the acquisition is forced, the fears they have for their business and their staff). Typically these concerns include:

- The future roles and remuneration of the key executives, particularly any contractual safeguards, carry-through of pension rights, stock holdings or options currently held or offered by their present company, etc.

- The real or effective price of the offering, allowing for the effect of any clauses that are future-performance based, as opposed to the apparent price.

- A clear picture of the role that the company being acquired will play in the new structure (which is where the strategic plan and self-analysis comes in handy since it can identify how the pieces are intended to hang together).

- A believable expectation for synergy between the two companies (or at least a strong commitment of support and development from the acquirer for the products and services of the acquiree) that both companies feel comfortable with.

- In the case of acquisition of a subsidiary, a contractual commitment to supporting the parent (where applicable) for captive services currently rendered by the subsidiary that is being acquired.

- Simplicity of approach and a short timetable for completion/decision. This frequently hinges on making sure that either the right level people are part of the negotiation team or the authority for major decisions is vested in the team members; all too often the negotiating team is powerless, which leads to frustration on the part of the target acquisition.

Incompatibility or poor chemistry between the individuals on either side of the table must be guarded against and instantly rectified if they occur. This is another case of the customer always being right (the "customer," in this instance, being the target). In the same way, it is important to realize that if the major objectives are achieved, it pays to let the other side win some of the smaller points.

There are two schools of thought on this phase of the negotiation. The first argues that if the main points are right, any reasonable proposals on contract detail should be accepted; the second considers that each point must be treated on its own merits, independent of any others. The question that needs to be answered in this case is, "What are the risks to the success of the overall contract (in terms of backlash) if every point is a subject of major discussion?"

Regarding risk, one should never underestimate the competition or their progress with the target acquisition. A lesson learned by every negotiator at one point or another is that it was very easy for three or four prospective buyers to think that each was ahead in the negotiations. Don't expect the management of the target to be entirely honest with you in this regard.

Once the negotiations have been concluded and an outline agreement drawn up, the reduction of the agreement to a binding legal document must be accomplished—the most frequently underestimated aspect of the whole process. It is not uncommon for this to take several months. The actual completion can therefore still be far off, even after an agreement in principle has been reached—and this can seriously affect the expected market window plan (and in some cases jeopardize the entire agreement).

"Good acquisitions take longer to find, longer to complete, and longer to absorb than you have planned—regardless of the contingencies you have included."

E

Postacquisition Strategy: Making it Work

The value of an acquired company is only partly in its user base, products, and assets. Those are tangibles, easily identified, measured, and usually valued (although the opinions of the acquirer and acquiree may differ substantially on this last point). Each company has a unique culture and method of operation that was largely responsible for its success; these are intangible, difficult to identify, measure, and (above all) value. Undervaluation of these intangibles leads to acrimonious negotiations at the front end (where the acquiree's management team feels it is being undervalued) and disillusionment after the acquisition (when the team may disband altogether).

These are not peripheral issues: they will determine whether the acquired companies produce growth and profits compatible with the heavy prices paid for them. Clearly, as much attention ought to be paid to this issue as to customer satisfaction within the ranks of the acquired companies.

The most important thing to realize is that the degree of interference/ intervention by the acquirer into the operations of the acquiree has to be gauged very carefully. If the company acquired is of the fast-growth/ high-profit variety, it is wise to let it run as an independent entity until the steam runs out; any outside intervention by the acquirer will be resented. On the other hand, strong management direction and close supervision will be readily accepted by an acquired company that is racking up heavy losses or is in disarray.

Basically, the key question is: "Does the company we are acquiring agree with the role and plans we have in mind for it? If not, and we lose the managers/engineers/other key entrepreneurial staff, what is left?" Very few companies are able to refrain from tinkering or trying to show who is in charge with the acquisitions. The result is that many obtain a poor return for their investment.

In the information services industry's various sectors, the opportunities and problems are unique—problems that must be viewed in the context of the high multiples being paid (price/earnings ratios frequently are twice the S&P 500 average):

- Software products is the most difficult sector to integrate acquisitions because of the high potential for disagreement; design of interfaces, file structures, program design, integration of elements/modules, what the market requires, whether the approach adopted by the acquirer's product lines is superior to the acquiree's products—and the list goes on. A "holding company" approach, letting each company operate independently (and possibly cooperatively), may be the most effective approach.

- The value of turnkey systems acquisitions is largely dependent on the acquirer's ability to leverage the product through additional sales channels (otherwise the company will continue to operate at its current rate, which can mean a long payback period); this is hard to do and may explain why turnkey systems companies are not in as high demand as many other information services sectors.

- Processing services/network information services acquisitions, generally speaking, can be easier to benefit from because acquirers are frequently able to leverage existing DP equipment processing/network capacity and customer bases with complementary services; also vendor/customer contractual relationships are frequently multiyear and relatively arm's-length.

- Professional services/systems integration acquisitions represent the most recent wave of acquisition activity in the information services industry. Principal benefits include the acquisition of new skills that can enhance the acquirer's capability to address new markets and the provision of marketing and financial strengths to the acquiree. To data, the larger professional services/systems integration companies, such as Computer Sciences, EDS, Computer Task Group, etc., are demonstrating successful acquisition programs.
    - However, more recently, much of the acquisition interest in this area is coming from nontraditional professional services vendors. Their success in integrating professional services activities into subsidiary operations is still to be determined.

- Clearly, as a result of this new merger and acquisition activity, competition, particularly in the commercial systems integration arena, will become much more intense, with the ability to provide breadth and depth of product and services, as well as strong financial capability, becomes a crucial ingredient for success.

F

Venture Capital: Complement to Acquisitions

Large information services vendors have an opportunity to adopt another high-risk option to outright acquisition, particularly in those markets that are developing very rapidly and where the outcome is uncertain: venture capital funding of small to medium-sized companies, with options to increase ownership at selected stages.

An example of this would be in the microcomputer software market, where a lot of unnecessary risk has been assumed by many information services vendors in acquiring outright whole microcomputer software companies long before the market had settled and their future determined. Too often, an element of haste enters an otherwise correct corporate strategy and causes decisions to be made that are regretted later.

Venture capital funding of small/medium start-ups preserves the vendor's position in the industry while substantially reducing the risk (which is shared by the other partners/shareholders in the start-up). This approach, as with outright acquisition, requires a clearly-stated, well thought-out strategy towards:

- The type of target company sought
- The stage of development that must have been reached
- The limit on initial funding
- The options that must be available for increasing the vendors' stake
- The conditions under which these options will be executed

There are several stages at which investments can be made:

- Zero stage (founders' stock investments), based on evaluation of a business plan; this stage requires a high level of competence with regard to product/service potential, patent evaluation, technology feasibility, and above all, assessing the quality of the people involved.

- First stage (or first-round financing), usually when the prototype has been built and tested and the initial marketing/production stage has been reached; this requires market judgment: "Is the market ready for this product and is the product ready for the market?"

- Second stage (or mezzanine financing) for market expansion, production expansion, etc.; investments at this stage are easier to evaluate.

The financial rewards that can be achieved from any one stage are directly proportional to the risks involved: high risk, higher potential reward. So are the losses. However, other considerations can mature these kinds of high-risk investments (particularly for existent companies in the information services industry). For example:

- "How much would a stake in this business cost if we try entering at the second stage rather than the first?"
- "Can be supplement/replace our in-house R&D efforts by investing in start-ups that may produce very high returns for the same level of monetary commitment?"
- "Do we need to assure access to technology developments or monitor progress in these areas, and can we do so by a minority stage in ABC company?"

In the past two to three years, in particular, there has been a trend for venture capital funds to invest in companies more mature than the start-ups historically utilized.

- This could relate to a perception that it is more difficult to bring companies public today, which could discourage taking higher risks on start-up ventures.
- In addition, to some extent, the glamor of technology as a predominant investment consideration, has been replaced by such fundamental business considerations as manufacturing efficiency and global marketing capability and other basic management skills.
- In addition, there have not been the high returns achieved in venture capital investment in recent years, compared to the earlier part of this decade This could relate, in part, to the excess of money invested a large number of raw startups in small to medium-sized markets, which resulted in excess competition and market shakeouts in the late 1980s.
- However, for information services companies taking minority equity stakes in start-up ventures today, it may represent a relatively low monetary risk for testing the feasibility of the product/services, with the intent of eventually either benefitting (monetarily) from an eventual IPO, gaining R&D insights, or buying the complete company at an attractive price (if a public stock offering would undervalue the longer-term prospects of the company).
- This also agrees with what appears to be an increasing trend among larger companies today—the inclination to buy versus build technology, particularly for niche markets. This also relates to the perceived development efficiencies of smaller technology companies.

The manner in which these investments take place can vary significantly. For example, conscious of the difficulties in gaining access to the deal flow or in obtaining the necessary in-house skills for deal evaluation and investment negotiation, a vendor may decide to simply participate in a specific venture fund that is focused on the types of business opportunities that it wishes to be involved in. The difficulty with this approach is that translating a minor share into an outright acquisition can be difficult, impossible, or very expensive—having a director on the board of each company invested in may be needed to facilitate the move when the time comes.

G

Are Acquisitions for Large Vendors Only?

Selling into a rapidly developing market does not present too many problems for any of the vendors that are participants, whatever their size: essentially they can be assured that the market is, for all practical purposes, "infinite" in the short term (i.e., none of them can exhaust their opportunities in the current year with the resources that they have). As the market matures, however, conditions change. Each vendor rapidly perceives a focusing of its role, market niche, and competition as the market space in which it moves becomes finite.

For practical purposes, a market that is expanding at less than 10% per annum can be termed "mature," and this certainly applies to batch processing services and the more general turnkey systems markets. However, there are still many niches within batch processing and the general turnkey systems markets that are growing well above 10%, and many companies within these sectors are doing the same, but let us assume that either a market or a vendor has reached maturity and must now look to grow by acquisition. It this option open to large vendors only or can small companies participate, and if so, how?

To begin with, large companies appear to have more difficulty making an acquisition than small companies, mainly due to the fact that the acquisition process presents the acquirer's management with a steady stream of situations requiring fast decisions and great flexibility—none of which are easily achieved by a large staff. Small companies, on the other hand, tend to have decision power concentrated in one or two individuals who can easily reverse a stated position if they need to, without much anguish. Secondly, the profile of the smaller acquirer is more clearly defined in terms of management style, strategy, and market orientation. As a result, it is quickly apparent if the acquisition candidate will "gel" with the acquirer. The large company presents a more amorphous, diffuse profile that is difficult to quantify and therefore difficult to match against potential acquisitions.

Acquisition opportunities frequently occur that do not fit the elaborately defined profile produced by advanced planning. When these occur, acquirers must be opportunistic—capable of revising their criteria to allow open-minded evaluation of the opportunity. The smaller the company, the easier this is to do.

A particular advantage today of a larger company versus a smaller company is the perceived relative attractiveness in the current public markets of larger companies. This could make the stock of a larger company more attractive to a potential acquiree than the stock of a smaller company due to the perceived longer-term stability of a bigger company. However, depending on the product growth cycle for the smaller acquirer, there could possibly be greater stock price appreciation with the smaller acquirer.

Once the acquisition is accomplished, the long, sometimes painful period of adjustment occurs when each of the companies tries to merge its preacquisition products, management style, personnel, and procedures into that of the partner. Small companies find this relatively easy: where necessary, the acquirer can adopt itself to the exigencies of the acquired company, where it makes sense. No such option is available with large acquirers that are only interested in one kind of adaption—that which acquired companies need to accomplish in order to fit their mode of operations.

Finally, there is a frequently forgotten advantage the small company has over the large company. At the time of the approach, the target company may be easily frightened off by the large corporation; whereas, the small concern appears to be less of a threat. The perception has good chances for continuing through the acquisition process, thanks to the flexibility of the small company.

A

Appendix: Directory of Active Acquirers

A

Appendix: Directory of Active Acquirers (Partial Listing)

A
Software Products

Apple Computer, Inc.
20525 Mariana Avenue
Cupertino, CA 95014

*Recent M&A Activities:
Nashoba Systems
Network Innovations
Orion Network Systems
Styleware

Computer Associates International, Inc.
711 Stewart Avenue
Garden City, NY 11530

Recent M&A Activities:
Applied Data Research
Atrium International
BPI Systems
Basic Software Group
Cricket Software
Cullinet (recent offer)
Integrated Software Systems
Software International
UCCEL
Value Software

* 1984-1988

Convergent, Inc.
(3Q 1988 acquired by Unisys)
2700 N. First St.
San Jose, CA 95150

Recent M&A Activities:
Baron Data Systems
Bidtek
Oakleaf

Cullinet Software, Inc.
400 Blue Hill Drive
Westwood, MA 02090

Recent M&A Activities:
Applied Development
Computer Strategies (Invest. Interest)
Distribution Management Systems
Esvel (Software Tech. Unit)
Planning Control International

Dun and Bradstreet Corp.
299 Park Avenue
New York, NY 10171

Recent (Information Services)
M&A Activities:
I.M.S. International
Interactive Data Corp.
McCormack and Dodge

Management Science America
3445 Peachtree Road, N.E.
Atlanta, GA 30326

Recent M&A Activities:
Comserv
Information Associates

On-Line Software International, Inc.
Two Executive Drive
Fort Lee, NJ 07024

Recent M&A Activities:
Martin Marietta (Data Systems Unit)
Software Technologies and Research
TXL Group (Software Services Group)

Pansophic Systems, Inc.
709 Enterprise Drive
Oak Brook, IL 60521

Recent M&A Activities:
Data Plotting Services (Graphics Unit)
Micro/Graphix
Professional Computer Resources
Remote Data Systems
Telmetrix (Teleview Session Manager Software)

B

Professional Services/ Systems Integration

AGS Computers, Inc. (Subs. of NYNEX Corp.)
1139 Spruce Drive
Mountainside, NJ 07092

Recent M&A Activities:
Systemtech
Vista Concepts

Arthur Andersen & Co. (Andersen Consulting Group)
69 West Washington Street
Chicago, IL 60602

Recent M&A Activities:
Kestenbaum & Co.
McCormack and Dodge (PIOS Manufacturing Resource Planning System)

Computer Sciences Corporation
2100 E. Grand Avenue
El Segundo, CA 90245

Recent M&A Activities:
American Accounts
Comtec
Compufact (Majority Invest. Interest)
Computer Partners
Credit Bureau of Cincinnati
Credit Bureau of Duluth
Index Group

Computer Task Group, Inc.
800 Delaware Avenue
Buffalo, NY 14209

Recent M&A Activities:
Analysts International (Invest. Interest)
Applied Management Systems
Berger Vernay
Central Computer Systems
Data Force
Documentation Resources

Emhart Corp.
(2Q 1989 acquired by Black and Decker)
426 Colt Highway
Farmington, CT 06032

Recent M&A Activities:
Advanced Technology
Planning Research

C

Processing (Network Services)

Automated Data Processing
One ADP Blvd.
Roseland, NJ 07068

Recent M&A Activities:
Automatic Information Systems
Bunker Ramo Information Systems
City National Bank (Instant Teller Division)
Commodity Communication
RIO Systems
Several bank payroll processing services

Citicorp
399 Park Avenue
New York, NY 10043

Recent M&A Activities:
American Technology
Quotron Systems

Electronic Data Systems (Subs. of General Motors Corp.)
7171 Forest Lane
Dallas, TX 75230

Recent M&A Activities:
Amtec Information Services
Applied Intelligent System (Invest. Interest)
General Data Systems
M/A-Com Telecommunications
National Data Corp. (Rapidata Time-sharing Business)
MTech
Societe Pour L'Informatique

Equifax, Inc.
1600 Peachtree St.
Atlanta, GA 30309

Recent M&A Activities:
National Decision Systems
14 Acquisitions in fiscal 1988

First Financial Management Corp.
Three Corporate Square
Atlanta, GA 30329

Recent M&A Activities:
American Automated
Appalachian Computer Services
Endata
First Data Management Holding Co.
NaBANCO Acquisition

FIServ, Inc.
2152 S. 114 Street
West Allis, WI 53227

Recent M&A Activities:
Citizens Financial
Capbanc Computer
First City Financial Systems
First Trust
GESCO
Pamico
Valley Federal S&L (Data Services Unit)

Welsh, Carson, Anderson, and Stowe
1 World Financial Center
200 Liberty Street #3601
New York, NY 10281

Recent Acquisitions:
ADVO-System (Invest. Interest)
Mohawk Data Sciences (Unit)
Source Telecomputing
Trinet

D
Equipment Companies (Partners/Acquisitions)

International Business Machines Corp.
Old Orchard Road
Armonk, NY 10504

Recent M&A and Partnering Activities:
Computer Task Group (Invest. Interest)
Image Business Systems (Invest. Interest)
I/NET (Invest. Interest)
Interactive Images (Invest. Interest)
Management Science America (Invest. Interest)
Metaphor (Invest. Interest)
Polygen (Invest. Interest)
Qronos Technology (Invest. Interest)
Spectrum
Transform Logic (Alliance)
Joint Marketing/Business Partnerships (hundreds)

Digital Equipment Corporation
111 Powdermill Road
Maynard, MA 01754

Recent M&A/Partnership Activities:
Apple Computer (Strategic Alliance)
RSA Data Security (Strategic Alliance)
Joint Marketing/Business Partnerships (hundreds)

E

RBOCs

Ameritech (Enterprise Group)
30 South Wacker Drive
Chicago, IL 60606

Recent M&A Activities:
Applied Data Research (resold to Computer Associates)
King, Netcall and TAS Communications
Metrocom
Multicom (Page Service Assets)
Speech Plus (Invest. Interest)

Bell South Corporation (Information Systems)
675 W. Peachtree Street, N.E.
Atlanta, GA 30375

Recent M&A Activities:
Air Call Holdings (Invest. Interest)
Mobile Communications (Invest. Inters. in Cellular Group)
National Radiophone's Cellular Customer Base

Cincinnati Bell
201 E. 4th St.
Cincinnati, Ohio 45202

Recent M&A Activities:
Anxton Computer Enterprise
ComQuest
Computer Communications Technology
Vanguard Technologies International

NYNEX Corporation (Information Systems)
335 Madison Avenue
New York, NY 10017

Recent M&A Activities:
AGS Computers
Business Intelligence Services
CAP International
Computer Catalysts
Computer Solutions
DATA Group
IBM Product Centers
Page Boy

Pacific Telesis Group (Information Systems)
130 Kearny Street
San Francisco, CA 94108

Recent M&A Activities:
Communications Industries
Graphic Scanning (Unit)
Integrated Technology (Invest. Interest)
Kensington Datacom
Teleconsult

U.S. West, Inc. (Information Systems)
7800 E. Orchard Road
Englewood, CO 80111

Recent M&A Activities:
Applied Communications
Broadcast Management
Command Data Systems (pending)

B

Appendix: Directory of Third Parties

B

Appendix: Directory of Third Parties

Third Parties

- Investment Bankers
- Investors
- Human Resources
- Brokers
- Lawyers
- Accountants

Examples

- Broadview
- Merill Lynch
- Salomon Bros.
- Alex Brown & Sons
- Robertson Coleman
- Welsh, Carson, Anderson, and Stowe
- INPUT - Mergers & Acquisitions, Vendor Analysis Program

C

Appendix: Survey Questionnaires

C

Appendix: Survey Questionnaires

A

Acquired Company Questionnaire

INPUT is examining the effect of acquisitions on the computer/communications software and services (information services) industry through 1994.

Industry

1. What is happening in the information services industry today with regard to acquisitions? How is this different from the past?

____

____

____

2. Will this acquisition process accelerate or decelerate over the next five years? How will it change?

____

____

____

3. What will the impacts be on the growth and success of the industry?

____

____

____

4. How will it affect the vendor structure of the industry by 1994?

____

____

____

Specific

1. When were you acquired? ____________ By whom? ____________________

2. How many companies sought to acquire you?

   Contacts (preliminary discussion) ____________________________

   Serious Discussions ____________________________________

   Firm Proposals ______________________________________

3. Who initiated the contact from the acquirer?

____

4. Why did you select the acquirer?

____

____

____

5. Today, which companies would you consider and/or select? Why?

____

____

____

6. How long did the acquisition process take?

____

7. Did you use a broker or third party? ☐ Yes ☐ No

Why? ____

____

____

Would you do so again? ☐ Yes ☐ No

Which broker did you use? ____

Were you satisfied with them? ☐ Yes ☐ No

Please comment on broker ____

____

____

8. Please rate the importance of the following in your choice on a scale of 0 to 5 where 5 = most important and 0 = not considered.

	Rating	Comment
Individual Benefits		
Cash/Tradeable Stock	________	________________________
Guaranteed Employment	________	________________________
Deferred Compensation/ Retirement	________	________________________
Corporate Benefits		
Cash Availability	________	________________________
Market Expansion	________	________________________
Stronger Competitive Position	________	________________________
Geographic Expansion	________	________________________
Investment for New Products	________	________________________
Investment for Equipment/ Other	________	________________________
Other Reasons		
Family/Health	________	________________________
Other (Specify)	________	________________________
____________________		
____________________		

9. How did you value your company? Please give factor (revenues, NIBT, etc.) and multiplier. How would you change this in retrospect and why?

____

____

____

10. What was the basis for acquisition?

_______________ % Cash _______________ % Stock

11. How much was up-front? Earnout?

_______________ % Front-End _______________ % Earnout

12. What was the cost of the acquisition process?

____

Personnel Time (person months) _______________________

Other Costs _______________________________

13. a) How did the postacquisition integration process work out?

____

____

____

13. b) What unforeseen problems arose? How were they handled?

____

____

____

14. How did you protect your people?

____

____

____

15. Did you achieve your objectives?

____

____

____

16. Would you make the same decision now?

____

____

____

17. What would you change?

____

____

____

18 . Please add any other comments

____

____

____

Thank You!

B

Acquirer's Questionnaire

INPUT is examining the effect of acquisitions on the computer/communications software and services (information services) industry through 1994.

Industry

1. What is happening in the information services industry today with regard to acquisitions? How is this different from the past?

___

___

___

2. Will this acquisition process accelerate or decelerate over the next five years? How will it change?

___

___

___

3. What will the impacts be on the growth and success of the industry?

___

___

___

4. How will it affect the vendor structure of the industry by 1994?

___

___

___

Specific

1. a) Why do you have an acquisition program?

____

____

____

1. b) What is the nature of your acquisition program?

☐ Formal—Definite plan with targeted size/types of companies

☐ Informal—Intention to acquire but no formal plan—examine opportunities as they arise.

☐ Both ☐ No Plan

2. a) If formal, do you have a "kitty" of cash and/or stock allocated? How often is it replenished?

____

____

____

2. b) Please describe your plan.

____

____

____

2. c) What determines your acquisition potential and success?

____

____

____

3. a) How many people do you have whose sole job is acquisition?

____

3. b) Whose main task is acquisition?

____

3. c) Who is the person responsible? What is his/her title and reporting line?

____

4. a) Please identify the acquisitions made over the last four years:

Year	# of Companies Acquired	Aggregate Revenues in Year Acquired	% of Total Rev. in That Year	Annual Growth Rate Prior To Acquis.	Annual Growth Rate Since Acquis.
1985					
1986					
1987					
1988					

4. b) For each year please categorize acquisitions.

	# Successful	Neutral # Unknown	# Failure	Reasons
1985				
1986				
1987				
1988				

4. c) Please give your evaluation of your satisfaction (i.e., degree to which your expectations were met) with acquisitions your company has made. (Please give numbers where more than one acquisition has been made.)

	Good	Bad	Indifferent
Representation by acquired company	_____	_____	_____
Management of acquired company	_____	_____	_____
Subsequent performance of acquired company	_____	_____	_____

5. Please provide your estimates of following parameters for 1988.

_____ Number of contacts

_____ Number seriously considered (formal evaluation)

_____ Number of proposals

_____ Number of closes

6. a) How have your acquisitions been made?

_____ Number (%) for cash

_____ Number (%) for stock

_____ Number (%) for combination

_____ Other

6. b) Do you use "earnouts"?

____

6. c) What is the formula and what period is covered?

____

____

____

7. How has the method of acquisition changed with time and how will it change in the future? Please comment on industry reasons and company reasons.

____

____

____

8. How is initial contact generally made for your successful acquisitions?

a) Acquirer _____%

b) Acquiree _____%

c) Broker _____%

d) Other _____%

9. a) Please discuss your attitude to the use of finders and brokers. Are you satisfied with the services they offer? What additional services would you like? Which ones do you use?

____

____

____

9. b) What fee scale do you normally expect to pay a broker?

____

____

____

10. What general sources of information are useful in terms of prospect identification?

____

____

____

11. For recent acquisitions, please describe the average cost and length of the process.

	Elapsed Time (Months)	Cost ($000) or %
Search	_____	_____
Evaluation	_____	_____
Negotiation	_____	_____
Close	_____	_____
Total	_____	_____

12. Please rate the following criteria for valuing a potential acquisition on a scale of 0 as unimportant, 5 as most important.

0 = Unimportant 5 = Important

Revenues _____

Profit (income before taxes) _____

Profit (income after taxes) _____

Net Worth _____

Growth Potential _____

Product Specialization _____

Industry Client Base _____

Type of Software/Service Offered _____

Other ______________________ _____

What multipliers do you use for the two most important criteria?

____

____

____

13. Please rate the areas in which you would consider acquisitions on a scale:

0 = No interest 5 = High interest

Geography

_____ U.S. _____ Europe

_____ Canada _____ Other

Size in Annual Revenues

_____ <$5 million _____ $5-20 million

_____ $20-100 million _____ >$100 million

Type of Company	Comment on Particular Type
_____ Software Products	______________________________
_____ Applications	______________________________
_____ Systems	______________________________
_____ Mainframe	______________________________
_____ Mini	______________________________
_____ Micro/WS	______________________________
_____ Professional Services	______________________________
_____ Systems Integration	______________________________
_____ Processing Services	______________________________
_____ Industry Specialized	______________________________
_____ Other (please specify)	______________________________

_____ Network Services _______________

  _____ Electronic Information _______________

  _____ Services (Data Bases) _______________

  _____ EDI, E-Mail, etc. _______________

  _____ Network Management, VAN _______________

_____ Turnkey Systems/VAR _______________

_____ Other (Please specify) _______________

14. Who is involved at each of the following stages of the acquisition?

	Search	Evaluation	Negotiation	Close
Internal				
Top Management	☐	☐	☐	☐
Board of Directors	☐	☐	☐	☐
Acquisition Function	☐	☐	☐	☐
Planning Function	☐	☐	☐	☐
Company Attorney	☐	☐	☐	☐
Technical Staff	☐	☐	☐	☐
Financial Staff	☐	☐	☐	☐
Other	☐	☐	☐	☐
External				
Outside Attorney	☐	☐	☐	☐
External Auditor	☐	☐	☐	☐
Financial Advisors	☐	☐	☐	☐
Brokers/Consultants	☐	☐	☐	☐

15. For a recent acquisition, please analyze costs as follows:

_____% Personnel

_____% Legal external (including necessary filings)

_____% Accounting

_____% Travel

_____% Other, including brokers fee

16. To what extent is confidentiality a problem? How do you handle it?

____

____

____

17. Who are your prime competitors in making acquisitions? What are their strengths? Weaknesses?

Company	Strengths	Weaknesses
_______________	_______________	_______________
_______________	_______________	_______________
_______________	_______________	_______________

18. What are the most significant difficulties in postacquisition implementation? How can these be addressed?

	Difficulty	Solutions
a) Marketing	_____	_____
b) Management	_____	_____
c) Product Development	_____	_____
d) Operation	_____	_____

19. Do you have a formal post-acquisition plan?

____

____

____

20. When do you change policies as far as:

Personnel benefits ______________________________

Compensation plans ______________________________

Management perks ______________________________

21. What have you learned about the acquisition process that you can share?

____

____

____

22. What would you like to know?

____

____

____

23. Are there any further comments you wish to make on this subject?

____

____

____

Thank You!

C

Potentially Acquirable

INPUT is examining the effect of acquisitions on the computer/communications software and services (information services) industry through 1994.

Industry

1. What is happening in the information services industry today with regard to acquisitions? How is this different from the past?

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2. Will this acquisition process accelerate or decelerate over the next five years? How will it change?

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___

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3. What will the impacts be on the growth and success of the industry?

___

___

___

4. How will it affect the vendor structure of the industry by 1994?

___

___

___

Specific

1. How many approaches have you received to be acquired in the past year?

____

2. a) Are you considering being acquired? ☐ Yes ☐ No

2. b) If the answer is yes, why are you considering it now?

____

____

____

c) If the answer to question 2a is no, when would you consider being acquired?

In a certain year? Please give year ________________________

When you have reached a certain size? Please give size. ________________

When the company has a certain market value? Please give value. __________

Please give any other indication of when you would consider being acquired. Why would you then consider being acquired?

____

____

____

3. Please rate the kind of company you would prefer to be acquired by and why (please rate "0" = wouldn't consider, "5" = most preferred).

Type of Company	Rating 0-5	Comment - Reason
Processing Services Company; e.g., ADE, EDS	_____	______________________________
Software Products Company; e.g., MSA, Computer Assoc.	_____	______________________________
Computer Equipment Company; e.g., Apple, DEC	_____	______________________________
Large Company; e.g., Emhart, Dun & Bradstreet	_____	______________________________
Financial Organization; e.g., Citibank, Merill Lynch, CIGNA	_____	______________________________
Communications Company; e.g., AT&T, GTE, Ameritech	_____	______________________________
Other (please identify)	_____	______________________________
European Company	_____	______________________________
Japanese Company	_____	______________________________

4. Which three specific companies would you most like to be acquired by if you were to be acquired? Why?

____

____

____

5. Please describe the method you would use to value your company.

_____ Revenues: Which year _____; What multiple _____

_____ Net income before taxes: Which year _____; What multiple _____

_____ Other: Describe ____

6. Please rate the factors, other than price, important to you in a company which would acquire you (please use scale of "5" = most important, "0" = unimportant).

_____ Growth & Profitability	_____ Personal Relationship Already Established
_____ Geographic Location	_____ Security of Employees
_____ Degree of Allowed Autonomy	_____ Stability of Previous Acquisitions
_____ Match of Business	_____ Other specify

7. On what basis would you prefer to be acquired?

_____ Cash _____ Stock _____ Combination _____% _____%

(please give % breakdown) Please comment

____

____

____

8. Please rate the reasons you would want to be acquired (please use scale of "5" = most important, "0" = unimportant).

_____ Enable Investors to Liquidate Capital	_____ Obtain Resources to Expand Market
_____ Meet Competition	_____ Obtain Investment for New/Product Services
_____ Other (please specify)	

9. Would you use a third party to "sell" your company? Who would you use and why?

____

____

____

10. What additional comments would you like to make?

____

____

____

Thank you for your courtesy and time in completing this questionnaire. Please return to Peter A. Cunningham, President.

D

Third Party Questionnaire

INPUT is examining the effect of acquisitions on the computer/communications software and services (information services) industry through 1994.

Industry

1. What is happening in the information services industry today with regard to acquisitions? How is this different from the past?

____

____

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2. Will this acquisition process accelerate or decelerate over the next five years? How will it change?

____

____

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3. What will the impacts be on the growth and success of the industry?

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4. How will it affect the vendor structure of the industry by 1994?

____

____

____

5. What are the dominant valuation methodologies currently being used for mergers and acquisition in the information services industry?

____

____

____

6. What are the current legal/regulatory constraints on merger and acquisition activity in the information services markets?

____

____

____

7. Which sectors of the information services industry listed below represent the strongest current acquisition activity/interest?

☐ Professional Services

☐ Processing Services

☐ Network Information Services

☐ Turnkey Systems

☐ Application Software Products

☐ Systems Software Products

8. How do you view the outlook for merger and acquisition activity in the information services over the next five years?

Compared to other industry sectors

____

____

____

Compared to activity levels in the past two years

____

____

____

Which sectors of the information services industry listed in question No. 7 could represent the most merger and acquisition activity over the next five years?

____

____

____

Thank You!